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PLAN FORMULATION AND EVALUATION STUDIES — RECREATION

Volume II of V

Estimating Initial Reservoir Recreation Use

Prepared by the

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Sacramento, California 95814

Published by the

U. S. Army Engineer Institute for Water Resources
Kingman Building
Fort Belvoir, Virginia 22060



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PLAN FORMULATION AND EVALUATION STUDIES - RECREATION

Volume II of V

Estimating Initial Reservoir Recreation Use

(Including Supplement 1 - Supplemental Reservoir Recreation Data - 1969)

A Report Submitted to the
Department of the Army
Office of the Chief of Engineers

Published by the
U. S. Army Engineer Institute for Water Resources
Kingman Building
Fort Belvoir, Virginia 22060

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PREFACE

In 1962, the Chief of Engineers initiated a Corps-wide method of sampling the existing recreation use on Corps of Engineers civil works reservoir projects. The data collected were incorporated into existing planning processes and provided the basis for improved administration of operating projects. The availability of data with which to describe recreation use provided the foundation for specialized studies such as those presented in this report. An evaluation of the data collected indicated that improvements could be made to make the data more useful. Consequently, in 1965 the Director of Civil Works authorized studies to be undertaken to:

- a. Evaluate the recreation-use data collection procedure and recommend methods for improving the statistical accuracy of such data and applying standardized data collection on a Corps-wide basis.
- b. Develop methodology for recreation-use prediction. Preliminary methodology to be developed as soon as possible and a long-range research program initiated to improve and refine the methodology.
- c. Develop methodology for determination of the number and type of recreation facilities needed to serve a given number of recreation days of use (facility load criteria).
- d. Develop methodology for determination of recreation benefits.

Studies to date have been performed under the general functional direction of Mr. Harold L. Blakey, Office, Chief of Engineers, with the actual work being assigned and performed in the Sacramento District under the direct supervision of Mr. Dale A. Crane. This report is the third of a series to be published indicating significant results obtained from these studies. The first was Contract Report No. 1, entitled "Analysis of Recreational Use of Selected Reservoirs in California." The second was Technical Report No. 1, entitled "Evaluation of Recreation Use Survey Procedures."

This report presents preliminary results of the studies authorized by the Director of Civil Works and provides a method of estimating initial project recreation use. It is anticipated that further research and analysis of data will provide refinements to this methodology, which will be published at a later date. Staff research efforts were performed by Mr. Charles R. DesJardins, Mr. Richard Brown, and Mr. Ronald Hyra. Just prior to publication of this report, the research project leader, Mr. Dale Crane, assumed new duties in the Ohio River Division; supervision of the continuing research studies is being conducted by Mr. Fred Kindel and Mr. Arthur M. Kinsky, Sacramento District. An Advance Concepts Group, established by the Office, Chief of Engineers, comprised of Mr. Harold L. Blakey, OCE; Mr. Gordon Jones, Southwestern Division; Mr. Lester Duck, Ohio River Division; and Mr. R.T. Lierboe, Missouri River Division, reviewed a preliminary draft and suggested changes which have been incorporated into the report. Dr. Jack L. Knetsch, Director of the Center for Natural Resources Policy Studies, George Washington University, provided expert consultant services and invaluable assistance throughout the entire study. Special appreciation is extended to the office and field personnel in the Savannah, Nashville, Little Rock, Fort Worth, Tulsa, Portland, and Sacramento Districts who collected the data which provides the basis for this report.

SUMMARY

This report presents methodology for estimating initial recreation use at prospective Corps of Engineers reservoirs. It is the outgrowth of recreation-use studies instituted by the Office of the Chief of Engineers, Washington, D.C.

The procedure described herein utilizes the "most similar project" concept; i.e., an existing reservoir that is most comparable in size, operation, and anticipated recreation-use characteristics. Relating recreation-use information from an existing reservoir to a reservoir under study provides the basis for the use estimating technique.

The report provides general descriptions, pertinent project information, and recreation-use data for 52 existing Corps reservoirs. It includes detailed discussion and evaluation of a prospective reservoir project and general criteria for selecting a similar project from among those reservoirs included herein. For illustrative purposes, an example detailing the application of the methodology is furnished.

While the methodology eliminates much of the "guess work" previously associated with estimating the recreation use and benefits for Corps reservoir projects, it is emphasized that it is by no means the "last word" or final solution. There are inherent deficiencies in the method. However, as more recreation-use data are collected and analyzed, it is planned that the technique will be revised and improved.

ESTIMATING INITIAL RESERVOIR RECREATION USE

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ESTIMATING INITIAL RESERVOIR RECREATION USE

PART I: GENERAL

Introduction

1. Recreation-use surveys to obtain information for reporting public attendance were instituted Corps-wide by the Office of the Chief of Engineers (OCE) in December 1962. An important purpose of the surveys was to assemble a body of data describing recreation use to provide a factual basis for estimating recreation use at reservoirs included in the Corps' civil works program. The original surveys provided limited information for recreation planning purposes and resulted in a proposal by the Sacramento District for a refined survey with a more rigid, statistical approach, which was adopted by OCE in 1966 on a test basis. Fifty-two reservoirs in seven districts were selected for the test program. The modified survey was conducted for three years: 1966, 1967, and 1968. During this period, approximately 735,000 people in over 238,000 vehicles were surveyed. The Sacramento District was designated to oversee the survey and be the repository for the data and was further assigned research functions as follows:

a. Evaluate the data collection procedure and recommend methods for improving the statistical accuracy of such data and/or applying standardized data collection on a nationwide basis.^{1/}

b. Develop methodology for recreation-use prediction.^{2/} Preliminary methodology to be developed as soon as possible and a long-range research program to be initiated for improvement of such methodology.

c. Develop methodology for determination of the number and type of recreation facilities needed to serve a given number of recreation days of use (facility load criteria).

d. Develop methodology for determination of recreation benefits.

Purpose and Scope

2. The purpose of this report is to furnish preliminary methodology and data useful in estimating initial recreation use at reservoirs (item 1b above, in part). This methodology is based upon the initial analysis of data collected by the seven districts participating in the program. The participating districts and the names and location of the reservoir projects included in the survey are provided in appendix A. A sample copy of the recreation-use survey form used is included as chart 1. The scope of the report covers discussion and presentation of results from preliminary recreation-use data analysis, discussion and presentation of methodology for estimating initial recreation use, supplying for each participating reservoir pertinent descriptive data (appendix A), per capita use rates calculated by regression techniques (appendix B), and summaries of recreation-use data (appendix C). It will be noted that the pertinent data sheets for reservoirs shown in appendix A include attendance data for the calendar years 1964 through 1968 inclusive. However, except for Sacramento District projects, 1964 and 1965 data were not included in the analysis. The 1964 and 1965 Sacramento data were collected utilizing essentially the same technique as the modified survey and were therefore included in the analysis.

^{1/} Results of this effort are published in Technical Report No. 1, "Evaluation of Recreation Use Survey Procedures," October 1969.

^{2/} Assistance in developing a methodology was obtained from the University of California, Davis. Results of this effort are published in Contract Report No. 1, "Analysis of Recreational Use of Selected Reservoirs in California," July 1969.

PART II: THE RECREATION-USE SURVEY

The Survey

3. The recreation-use survey was designed as a standardized data collection procedure to provide consistent, reliable recreation-use statistics for each reservoir surveyed. The recreation-use data derived from the survey represent the recorded responses of a sample population of recreationists at 52 reservoirs of various sizes and characteristics selected from districts in widely different sections of the United States. About 238,000 elementary sampling units (vehicles), comprising about 735,000 individuals, were surveyed. Accordingly, the data collected reflects a diversity of regional conditions and population characteristics. Each survey of recreation use was conducted in such a manner that data obtained were representative of almost all recreationists visiting that particular reservoir. Data were collected for selected weekends and weekdays at recreation areas that were representative of the various types of recreation opportunity available at the reservoir being surveyed. The survey year was divided into three four-month periods—February through May, June through September, and October through January. Normally, the survey was conducted for a minimum of 12 hours per day on a weekday and weekend day in the same week. Traffic entering the project was metered continuously throughout the year at both surveyed and non-surveyed entrances. Samples of this traffic were surveyed by means of personal questionnaire interviews with those driving into recreation areas (a copy of the survey form is presented as chart 1). Statistics describing various components of total recreation use at the reservoir are estimated from this sample through the use of weighted means, activity participation percentages, and other standard statistical methods. Aggregate estimates are functions of sample measurements and mechanical traffic counts. Survey data are used with traffic measurements to estimate total annual attendance expressed in recreation days.^{3/} A detailed discussion and evaluation of the survey procedures is provided in Technical Report No. 1, "Evaluation of Recreation Use Survey Procedures," dated October 1969.

^{3/} Supplement No. 1 to Senate Document 97, issued by the Ad Hoc Water Resources Council 4 June 1964, defines a recreation day as "A standard unit of use consisting of a visit by one individual to a recreation development or area for recreation purposes during any reasonable portion or all of a 24-hour period."

Reliability of Survey Estimates

4. Improved data collection and recreation-use estimating procedures are two major objectives of the research program. Present procedures have evolved from a concentration on standardization in order to avoid undesirable variation in collecting similar kinds of data. (The emphasis underlying the development of the existing procedures has been on implementing such a standardized program within the constraints inherent in the Corps of Engineers organizational structure.) Special "error-edits" were incorporated into automatic data processing programs to cross-check and assist in correcting data collection deficiencies. Although not indicative of the reliability of the various component recreation-use statistics, standard statistical measures were used to determine the reliability of the survey-collected statistics in estimating recreation use. The following tabulation indicates the magnitude of sampling error found in reliability measures.

| Size of Estimate (Thousands) | Standard Error (Thousands) |
|---------------------------------|-------------------------------|
| 50 | 10 |
| 250 | 19 |
| 500 | 30 |
| 750 | 41 |
| 1000 | 52 |
| 1250 | 63 |
| 1500 | 74 |
| 1750 | 85 |

Tabulated Data

5. The data shown in appendix C (recreation-use data summaries) are tabulations by district, project, survey period and year of surveyed visitation, number of people surveyed, average party size per surveyed vehicle, and percent of participation in each of the major recreation activities. With regard to the recreation activity data, it will be noted that the sum of the

percentages shown for the various activities exceeds 100 percent; this is the result of visitors taking part in more than one activity during their stay at the reservoir. The categories listed in the survey summaries are generally self-explanatory; however, the following definitions and additional information are provided for clarification.

a. **Percent of visitors on weekend.** — This is a ratio of weekend autos to total autos metered during the survey week.

b. **Pleasure boating.** — Pleasure boating is a boating activity exclusive of any other boat-associated activity such as fishing from a boat or water skiing.

c. **Sightseeing.** — Sightseeing is the activity of a visitor who takes part in no other specifically listed activity while visiting the reservoir.

d. **Weighted average.** — Weighted averages are determined according to the total number of vehicles surveyed, with appropriate weight given to the numbers included in each of the survey periods. Columns labeled weighted average are composites of spring, summer, and fall survey results for each reservoir. Lines labeled district weighted average are composites of spring, summer, and fall survey results for all reservoirs in each district. In the three categories pertaining to duration of visit, zero values were excluded during the weighing process.

PART III: PROJECT DATA

Data for Participating Projects

6. Pertinent project data such as location, size, number of access areas, attendance, and similar information considered necessary to adequately describe a project were obtained for each reservoir included in the survey. Those data were compiled and are included in appendix A. This information is provided as an aid to evaluating reservoir characteristics that may influence recreation use and also to provide a basis for selection of an existing project that is most similar to a proposed project. Detailed discussion on selection of the most "similar project" is contained in paragraph 10.

Definition of Terms

7. Since there could be a great diversity in the meaning of the terms used in this report, standardization of the following terms was made for clear understanding of the project data provided in appendix A.

a. **Pool size, maximum.** — Refers to surface area of pool at full reservoir (corresponds to storage normally cited as reservoir capacity).

b. **Pool size, average recreation.** — Refers to surface area of the pool storage representative of

long-term average conditions occurring during the seasonal period of greatest public use.

c. **Number of access areas.** — Recreation areas accessible by road.

d. **Recreation facilities:**

(1) **Tent and trailer space.** — A space provided exclusively for camping regardless of type of camping equipment used.

(2) **Day-use area.** — An area designated for day-use activity which may or may not have recreation facility development.

(3) **Boat-launch lane.** — A launch lane is determined by width, each lane being 12 feet wide; including abandoned roads if so used. (A boat-launch ramp may be comprised of one or more boat-launch lanes.)

e. **Total attendance (or use).** — The total annual attendance, expressed in recreation days (may refer to single activity or all activities combined).

f. **Percent of annual attendance during peak months of use.** — The percent of annual attendance by month for the months of highest attendance averaged for all years of available data.

g. **Number of competing water-oriented recreation opportunities.** — The number of natural lakes, reservoirs, and rivers within the specified distance in road miles from the reservoir which have developed areas and recreation facilities provided for public use.

PART IV: ESTIMATING USE

Synopsis of Procedure

8. Briefly stated, the recreation-use prediction method is comprised of the steps noted below. Each step is discussed in more detail in paragraphs that follow.

- a. Evaluate the proposed reservoir project characteristics.
- b. Select a similar project or similar projects by comparing such characteristics with the information provided in appendix A.
- c. Evaluate the day-use market area of the similar project.
- d. Determine the day-use market area of the proposed project.
- e. Select a per capita use curve for the similar project or projects from appendix B.
- f. Modify the per capita use curve to reflect the dissimilarities between the similar projects and the proposed projects.
- g. Determine the county populations within the day-use market area for the anticipated year that project operation will begin and derive per capita use rates for each county population by measuring road-mile distance from the project to the center of the most populated city within the county (proxy for centroid of county population).
- h. Calculate annual day use from each county—per capita rate x country population.
- i. Sum the contribution from each county to find initial annual day use for the project.
- j. Determine the percent of total day use that the foregoing estimate represents—if 100 percent, it is used “as is”; if less, adjust accordingly.
- k. Determine the percentage of camping use for the similar project or projects from the recreation-use data summaries provided in appendix C and apply this to the day use to get total use (see paragraph 17).

The recreation use as predicted from the above procedure will provide the initial year total recreation use in recreation days. A detailed example of how this procedure is used is discussed in Part V: Example of Method.

Project Area Evaluation

9. Project characteristics are discussed in the following subparagraphs.

a. **Reservoir area characteristics.** — The primary physical characteristics to be considered are the various measurements of reservoir size and the topography of the reservoir basin. Studies to date, while not conclusive, indicate the best measures of size are the surface area and miles of shoreline associated with the average pool available for recreation during the months of highest public use. However, the size characteristics must be considered in relationship to the topography of the reservoir basin; e.g., a steep “V” basin provides limited littoral areas which are often essential to fishery production and limited shoreline suitable for recreationists to distribute themselves around the water area.

b. **Accessibility.** — Perhaps the major consideration in evaluating access to the project is the quality and number of major access routes from the nearby population centers to the general reservoir area. County, state, and federal highway agencies should be contacted to obtain information relative to future improvements of existing roads or construction of new roads in the general area which will influence the flow of traffic to the potential reservoir area. The addition of new roads or the improvement of old roads may substantially shorten travel distance (or time) and may lead to enlarging the market area, resulting in a larger potential demand population. Possibly of equal importance is the amount of access which can be provided to the reservoir shoreline for the public to distribute themselves by auto. A reservoir with limited access to the water will not have as great a potential to support recreation use as one which allows recreationists to distribute themselves around the entire shoreline. Observations and examination of recreation use at reservoirs with differing access features indicate that the ability to disperse about a reservoir adjacent to the water is an important consideration in attendance levels.

c. **Reservoir fluctuations.** — The amount of fluctuation in a reservoir is generally considered an important influence on recreation-use potential. Analysis of Corps data at the University of California, Davis, indicates that large variations in water level and water surface area deter camping use (Contract Report No. 1). Large reservoir drawdowns are usually considered to be detrimental to recreation potential, while small drawdowns provide comparatively more potential. However, this may not always be true; in some cases, when reservoir levels drop, extensive

amounts of land may be exposed that are highly suitable for recreation use. In some cases, where steep slopes are encountered at high reservoir levels and gentle slopes at lower levels, recreation use of the reservoir margin is increased with drawdown.

d. **Alternative recreation opportunities.** — The phrase "alternative recreation opportunities" is characterized by various substitute terms of which the most commonly used is "competition." The importance of alternative opportunities in predicting recreation use has been recognized in various published literature. Discussion has not only centered around similar alternative opportunities but also in whether supplemental recreation opportunities should be evaluated. For example, a city with a large, uncrowded park system with or without water-oriented activities may be considered as an alternative recreation opportunity. Fortunately, the per capita use rate curves included in appendix B reflect the alternative opportunity choice available to the market area of origin in each case. Studies to date indicate that alternative opportunities may be a significant variable and, when considering selection of a similar project, careful evaluation of alternatives available to the market area of the similar project and the project being studied should be made. However, because of the difficulty in determining the amount of all types of alternatives and the degree to which each type constitutes a different recreation commodity, alternative opportunities considered should be restricted to water-oriented outdoor recreation opportunities only.

e. **Recreation facilities.** — Regression studies conducted to date show some degree of correlation between recreation use and various measures of facility development such as investment, camp sites, boat-launching ramps, etc. Unfortunately, it is unclear whether existing recreation use leads to increased facility development or if increased development attracts more users. Because of this circular causality, no clear indication of the effect of facilities on use is available (other than those for access, see paragraph 9b). Accordingly, the planner should make value judgments concerning the influence of anticipated facility development programs between the proposed project and any similar projects.

f. **Activity limitation.** — The planner must be careful to evaluate possible recreation activity limitations posed by various factors. Existing county and state laws regarding water-contact sports and water safety should be considered as possible limiting factors. Another example might be high elevation

reservoirs which are generally too cold to expect significant swimming use. Also, anticipated poor water quality should be evaluated as a possible deterrent to recreation attendance to the extent that such conditions may limit fish production or water-contact sports. Another limiting factor might be the expectation of high fire hazard in forested areas calling for restrictions (fire-season closures) on recreation use.

g. **Reservoir area quality.** — Water quality, climate, vegetation, and scenic and aesthetic values are generally similar from project to project in the source geographic region but may vary considerably from region to region. However, extremes may occur that significantly affect recreation use. Operational evidence from the majority of participating projects included in the research program indicates that the primary attraction to recreationists appears to be the water area. Accordingly, the evaluation of the recreation potential of project lands should be based on best use of the water area for specific activities. For example, a moderate to gently sloping shoreline may be best suited to swimming and shore fishing and similar activities which are shoreline-associated, while camping areas may be somewhat more remotely located to take advantage of favorable slopes for development, potential for future campground expansion, etc.

Selection of Similar Project

10. Subsequent to evaluation of the proposed project characteristics discussed in paragraph 9, an existing similar project or projects should be selected by evaluation of the same project characteristics (see appendix A). If sufficient information is available from another similar existing project not discussed in this report, such data should be used. Evaluation of per capita use rates (appendix B) and other data as shown in appendix C does not reflect geographical similarities between projects. Accordingly, unless evidence to the contrary is available, the planner should not limit consideration of the similar project because of geographic location. After selection of the similar project or projects, evaluation of the day-use market area conditions may provide further information which will modify this selection. Further discussion is contained in paragraph 14. The planner should be alert to unusual socio-economic characteristics on a broad scale. An example would be a large

area predominantly composed of retirement communities. Another important consideration is alternative water-oriented recreation opportunities. Information about alternative opportunities such as the latest attendance estimates, attendance trends, kinds of recreation facilities, expected development level, and degree of saturation should be obtained for proper evaluation. Water projects that are expected to be built at some future date should also be considered. When comparing attendance estimates from alternative recreation areas administered by different agencies, extreme caution should be used because agencies often collect recreation data using different measuring criteria or collect data in the same manner but use a different descriptive term.

Day-Use Market Area Evaluation

11. For purposes of this report, the day-use market area is defined as the area which contributes 80 percent or more of the annual day-use visitation to a reservoir project. The per capita use curves provided in appendix B extended to the outer boundary (in road miles) of the market area. A brief description of the derivation of the per capita curves included in appendix B is as follows: The area surrounding the participating project was divided into 13 distance zones. Zones 1 through 5 are each 10 miles wide and zones 6 through 13 are each 25 miles wide. These zones were determined by measuring road mile distance along major and secondary access routes from the visitors' origin to the reservoir. To calculate a per capita visitation rate by distance zone, an estimate of the population within each zone and an estimate of aggregate recreation use by each zone was made. The annual recreation use contributed from a particular zone divided by the population for that zone yielded a zonal per capita use rate (the number of visits to the project for each person in a particular zone in one year). Zonal per capita day-use rates were averaged for 1966, 1967, and 1968 and then plotted against distance for each of the 52 reservoirs. It will be noted that for most projects not all of the available per capita rates have been used. In most cases, the rates for at least zones 1 through 5 are plotted; to conform with the definition of the market area, additional zones were added until the 80 percent level was reached or exceeded. Accordingly, the rates shown represent between 80 percent and

100 percent of the day-use visitation. In those instances where regression curves are excluded, the data from which regressions would have been calculated were considered unusable for delineating per capita recreation use.

Description of Per Capita Use Rate Charts

12. Selected data for each of the 52 reservoirs are presented on charts contained in appendix B. The charts are semi-logarithmic, with six cycles on the vertical scale allowing measurement of per capita rates from .0001 to 100. The horizontal scale represents road miles. The plotted points are averaged per capita day-use rates for all years for which per capita visitation is available. When one of the five regression equations was applicable, a regression curve of per capita rate on distance was plotted. On projects for which all five equations were rejected, only the points recording the averaged survey estimates for all years are shown. The measure presented to indicate the regression, r^2 , is the coefficient of determination for the plotted values, not for the values of the transformation regressed. The reliability of the per capita rates has not been estimated since the indicators of aggregate estimate reliability are not applicable to estimates by origin. The data collection and population partition by zone for each project was accomplished by the district administering the participating project. Consequently, it is likely that there exists some variability in error among districts.

Day-Use Market Area

13. The day-use market area for a proposed reservoir project under study is established using the existing market area of the similar project with appropriate adjustment by the planner based on his experience and personal knowledge of the area. The market area of the proposed project need not have a minimum 50 mile radius; the area can and often will be smaller or considerably larger depending on the location of the major using population. If, when establishing the counties to include in the market area, there is some doubt as to where the boundary should be drawn, the general criteria for selection is inclusion of those counties which have approximately one-half of their population and/or land area within the tentative day-use market area boundary.

Selection of Per Capita Rates

14. No two projects are identical; therefore, the recreation planner must empirically modify information about the existing project to obtain estimates applicable to the proposed project. Although available recreation attendance information includes both day-use and camping data, it should be noted that the per capita visitation data shown in appendix B are based on day-use data only. Estimates of camping use are not neglected; the procedure for making such estimates is discussed in paragraph 17. The initial selection of a similar project from which to obtain per capita use rates should be based on approximate reservoir size in terms of the surface area of the average recreation pool. Further review of the projects within each average recreation pool category can be obtained from the pertinent data sheets and the narrative descriptions contained in appendix A. In general, the reservoir most similar in physical characteristics and water-oriented competition should serve as the similar reservoir. However, when possible, consideration should be given to selecting a similar reservoir near the site of the proposed reservoir. If the planner has difficulty in obtaining a similar project based on comparison of average recreation pools, the next smaller and next larger category should be examined. In the absence of a single most similar project, it may be desirable to use the characteristics and data from two or more projects. The recreation-use data from the similar project(s) is used to adjust the similar project per capita rates to more nearly fit the prospective project. The difference among the per capita rates of day use for various projects may be associated with differences in either project or population variables. In all instances, including those projects not depicting a regression line, the available per capita rates can provide a benchmark to guide the planner's judgment. Under ideal conditions when the proposed and similar project are alike, no adjustment would be required. However, dissimilarities do exist and will have an effect upon the magnitude and the slope of the per capita line. The following variables should be examined carefully for differences between the similar project and the project under study. Adjustment in per capita rates should be based upon differences in these variables. However, it should be noted that extremes in any of these variables (e.g., polluted water unfit for contact) may affect recreation use out of proportion of their normal influence.

- a. **Size and Quality:**
 - Surface area (average recreation pool)
 - Land area and gradient
 - Length of shoreline
 - Fishery potential
 - Water quality
- b. **Accessibility:**
 - Number of major access routes
 - Quality of access routes
 - Number of access points
 - Length of shoreline accessible by auto
- c. **Reservoir fluctuation:**
 - Extent
 - Frequency
 - Duration
- d. **Alternative outdoor water-oriented recreation opportunities:**
 - Number
 - User capacity
 - Quality of recreation experience
 - Relative price of the recreation experience
- e. **Recreation facilities:**
 - Number and type
 - Quality
- f. **Activity limitation:**
 - Size of project
 - Laws or regulations
 - Water temperature
 - Water quality
 - Weather conditions

Estimating Initial Day Use

15. The per capita use rates shown in appendix B, although calculated on the basis of fixed-distance zones, yield estimates for any applicable county distance. The per capita use curve for the proposed project will provide a per capita use value for any county at the appropriate road mile distance from the proposed project. Road mile distance to the population center of any county is determined, and the appropriate per capita value is applied to the total county population. This procedure is repeated for each county and the resulting recreation use is totaled. Generally, the most populated city can be used as a proxy for a calculated population center (centroid). Road mile distance from the center of the city to the project is measured and the value from the adjusted per capita curve corresponding with that

road mile distance is recorded as the per capita use value for the county. (Additional discussion of this is contained in Part V, and in Contract Report No. 1.) In the case of those counties with two or more major population centers, it may be necessary to treat those populations as separate units with separate per capita values. The reason for dividing a county into individual units is that per capita day-use visitation generally decreases rapidly as distance increases. When two or more large population centers exist with a single county, selection of a single centroid could lead to selection of a distorted per capita value. An additional problem is relating both population estimates and per capita use values to the initial year of use for the proposed project relates to time lag between the investigation and the anticipated year that operation of the completed project is commenced. This projection has often been made for periods up to 20 years in the future. The required population variable should be projected to the initial year of project operation based on the same projections used in formulating other project purposes.

However, to maintain a relatively conservative use estimate, it is generally not advisable to attempt projection of a changing per capita rate from the year(s) the data was collected to the initial year unless substantial evidence is available which will justify such an adjustment.

Example of Initial Day Use Determination

16. Consider, for example, that Black Butte Reservoir was selected as the most similar project to the prospective project under investigation. Also, assume that the prospective reservoir is such that the selected market area includes seven counties. The road mile distances to the county centroids and the county populations are listed in the following tabulation. The estimated day use from each county and total estimated day use from the market area is included (products of column (c) and (d) values). The per capita rates used below were read from page 30, appendix B.

| (a) | (b) | (c) | (d) | (e) |
|--------|------------|-----------------|----------------------|---------------------------|
| County | Road Miles | Per Capita Rate | Projected Population | Day Use (Recreation Days) |
| 1 | 67 | .16 | 82,030 | 13,125 |
| 2 | 47 | .40 | 12,075 | 4,830 |
| 3 | 16 | 2.30 | 20,911 | 48,095 |
| 4 | 55 | .27 | 56,988 | 15,390 |
| 5 | 60 | .22 | 2,247 | 495 |
| 6 | 22 | 1.50 | 33,380 | 50,070 |
| 7 | 21 | 1.55 | 33,859 | 52,480 |
| TOTAL | | | | 184,485 |

(Rounding might result in a total of 184,000, 185,000, 180,000, or 200,000, depending upon relative imputed accuracy.)

In some cases, it is necessary to modify this day-use estimate by application of a percentage value representing the planner's judgment of any additional differing influences between the project under study and the similar project(s) from which data was derived. An example of such a differing influence could be the additional day use contributed by visitors to resorts in the vicinity of the project under study who would use the project on a day-use basis.

If judgment indicated a 10 percent increase due to such an influence in the above example, 18,400 would be added to 184,000 for a total use estimate of 202,400, or 200,000 by rounding. (This discussion relates to item j, paragraph 8, and the last two sentences in paragraph 26.)

Estimating Total Initial Use

17. If, in the planner's judgment, there is no camping anticipated at the prospective project, the previously calculated day-use estimate will represent

total initial use of the project. However, if camping is anticipated, the total initial use will be a combination of camping and day use. In this case, the total initial use may be estimated as follows:

$$\text{Total initial use} = (\text{day use}) \div \left(1.00 - \frac{\% \text{ of camping}}{100}\right)$$

Appendix C indicates that the average percent for camping on Black Butte Reservoir, which was previously selected as the similar project, is 3 percent. Hence, the day use contribution to total use (denominator for the previous equation) is $(1.00 - .03) = .97$ or 97 percent. Using the day use estimate of 184,000 recreation days as determined above, the total use may be estimated as follows:

$$\text{Total use} = (184,000) \div .97 = 190,000 \text{ recreation days}$$

Projection of Potential Recreation Use

18. An important part of the recreation analysis of the prospective project is the estimation of potential future recreation use anticipated for a project over its economic life. Although there are many factors that may affect future recreation use projections, there are essentially two basic items to be considered: population projections and anticipated increases in future per capita use rates. Most published literature indicates that the per capita rate for water-oriented outdoor recreation use is increasing. However, since available Corps data cover such a relatively short period, it has not been found desirable to project per capita use increases for project formulation studies. (Although not reported here, a preliminary projection of per capita use rates in California was constructed from available data and has been useful in indicating the scope of anticipated per capita use increases.) Further studies will be made in an attempt to determine incremental annual change in per capita use rates for wider application. In the interim, it is suggested that existing rates be applied assuming no change over the life of the project.

Additional Considerations in Use Prediction

19. An important consideration is the estimation of existing recreation use at prospective reservoir areas under pre-project conditions. This evaluation depends primarily upon inspection of the resources of the potential reservoir area and evaluation of available recreation use information in the area. This amount of recreation use must be subtracted from the initial use estimate prepared for the reservoir project. Another important consideration is estimating the physical potential of the project to support recreation use. For each reservoir, and the physical resources made available, there will be a certain level of recreation use beyond which there would be detriment to the existing natural resources; "elbow-room," or the degree of tolerance to crowding is also important. This principle applies to individual recreation areas as well as an entire reservoir project. Thus, attendance can generally be expected to reach a maximum practical level and then oscillate about that level for the remainder of project life. In cases where reservoir resources are large, and the surrounding user population is comparatively low, the maximum practical level may not be reached within the economic life constraint.

Conclusions

20. The foregoing methodology is an interim procedure for estimating initial reservoir recreation use pending the development of more exact prediction techniques. It is recognized that there are inherent deficiencies in the method and that additional data and more extensive research are needed before further refinements are possible. Current data collection and research efforts are directed toward more precise definition and quantification of variables influencing recreation use and the development of more accurate procedures for estimating use.

PART V: EXAMPLE OF METHOD

Application of the Method

21. An initial recreation-use estimate for Pine Hollow Reservoir, a hypothetical multipurpose reservoir project under investigation on Lee Creek in western Arkansas and eastern Oklahoma, is discussed in the following paragraphs.

Similar Projects and Pertinent Data

22. Examination of pertinent data for the 52 projects included in appendix A shows two projects as being most similar to Pine Hollow: Black Butte in California and Hills Creek in Oregon. For comparison, pertinent data for Pine Hollow, Black Butte, and Hills Creek are presented in the tabulation on the following page.

Day-Use Market Area

23. Comparison of day-use recreation attendance data for the similar projects shows that the majority of day-use visits originate from within 50 road miles of those projects. Fifty road miles (in this example) is also applicable as the day-use market area boundary for the Pine Hollow project. Applying the criteria for selection of counties to be included in the day-use market area; i.e., 50 percent or more of land area and/or population of a county is within the boundary of the day-use market area, there would be nine counties expected to contribute the majority of day-use recreationists to the project. (Bear in mind, however, that strict adherence to these criteria is often neither possible nor is it recommended; they are provided as guidelines only and should be viewed within that context. Selection of counties or parts of counties with their respective population should be

an informed judgment decision made by the planner based on his personal knowledge and expertise and not simply selection that is based on conformance to criteria only.)

Per Capita Recreation Use

24. Per capita recreation use for the two existing reservoirs is shown on a work sheet (chart 2), and the anticipated per capita use rate for Pine Hollow has been entered.

Counties and Populations

25. With the counties and populations determined and a per capita recreation use curve established as shown in chart 2, the road mile distances to the most populated city within each county and the per capita use rates corresponding to those distances are recorded. (However, in determining such rates, it should be understood that using the most populated city as the center of population for a county is merely a guideline. If, in the planner's judgment there are circumstances which justify establishing more than one per capita rate per county as in the case of large counties with more than one major population center, it is advisable to do so.) The data presented in the tabulation shown in paragraph 26 contains two adjustments—both based on the planner's judgment. The first is an adjustment whereby a measurement to the most populated city (Crawford County, 18 miles) would have resulted in an extremely conservative per capita rate for the county and not a true reflection of anticipated use (Crawford County, 0-10 miles). The second utilizes only one-half of a county population (Le Flore County), which is a judgment decision based on knowledge of the area and anticipated use patterns.

PERTINENT DATA COMPARATIVE TABULATION

| Item | Pine Hollow | Hills Creek | Black Butte |
|--|------------------------|------------------------|------------------------|
| Location (State) | Arkansas | Oregon | California |
| Maximum pool: | | | |
| Acre-feet | 124,000 | 356,000 | 160,000 |
| Surface acres | 2,850 | 2,819 | 4,560 |
| Average recreation pool: | | | |
| Surface acres | 2,200 | 2,700 | 2,845 |
| Shoreline miles | 26 | 35 | 25 |
| Year impoundment began | — | 1961 | 1963 |
| Number of access areas | 4± | 5 | 5 |
| Recreation facilities: | | | |
| Tent and trailer spaces | — | 58 | 37 |
| Day-use areas (capacity in recreation days) | — | 1,500 | 10,000 |
| Boat launch lanes | — | 5 | 7 |
| Attendance (recreation days): | | | |
| 1967 | — | 99,600 | 179,700 |
| 1966 | — | 107,446 | 213,390 |
| 1965 | — | 95,500 | 155,820 |
| 1964 | — | 66,413 | 107,600 |
| Recreation season | Apr-Sep | May-Sep | Apr-Sep |
| Project purpose (FC = flood control, R = recreation, C = conservation, P = power, WS = water supply, and I = irrigation) | FC, WS, R | FC, C, P | FC, I |
| Timber cover | Dense | Dense | Sparse |
| Reservoir terrain | Moderate to steep | Steep | Moderate |
| In National Forest | Yes | Yes | No |
| Access: | | | |
| Paved road, about ½ of reservoir | Yes | Yes | Yes |
| Limited access, about ½ of reservoir | Yes | No | Yes |
| Overnight lodging nearby | Yes | Yes | No |
| Competing water-oriented recreation areas: | | | |
| 0-25 miles - lake (acres) | 14,800 | 5,385 | 1,250 |
| - river (miles) | 0 | 0 | 35 |
| 25-50 miles - lake (acres) | 84,500 | 16,452 | 3,923 |

Initial Day Use

26. The tabulation presented below summarizes the data used in determining initial year day use for the Pine Hollow project and also details the derivation of such use.

Based on the criteria that the day-use market area used here comprises between 80 and 100 percent of the estimated day use to the project, a further decision has to be made from similar project data as to what the percent of total day use that the foregoing estimate represents. In this example, it is assumed that, on the basis of regression curves for the similar projects, virtually all of the day-use visitation to the project will originate from within the market area used, therefore, the estimate derived represents 100 percent of base year day use.

Camping Use and Total Initial Use

27. The day-use estimate is now used as the basis for estimating total initial year recreation use. To do this, an estimate of the percent of anticipated camping use to total use for the project must be made. Examination of camping data for the Little Rock District, in which the Pine Hollow project would be located, shows that the weighted average of campers on the projects in that district represents 15 percent of the total use. Empirical adjustments to this percent may be made if warranted. However, for illustrative purposes, the percent is used "as is" in the following calculation.

$$\text{Total annual use} = 137,000 \div (1.00 - 0.15) = 161,176$$

$$\begin{aligned} \text{Total project base year recreation use} \\ \text{(rounded)} &= 160,000 \text{ recreation days} \end{aligned}$$

| <u>County</u> | <u>Population</u> | <u>Distance Road Miles</u> | <u>Use Rate</u> | <u>Day Use</u> |
|---------------|-------------------|--------------------------------|-----------------|----------------|
| Crawford | 7,000 | (0-10) | 6.9 | 48,300 |
| " | 17,200 | 18 | 1.1 | 18,920 |
| Sebastian | 73,600 | 23 | 0.62 | 45,632 |
| Adair | 14,800 | 28 | 0.37 | 5,476 |
| Washington | 72,600 | 40 | 0.15 | 10,890 |
| Le Flore | 16,000 (1) | 41 | 0.145 | 2,320 |
| Sequoyah | 21,500 | 46 | 0.105 | 2,257 |
| Cherokee | 22,600 | 48 | 0.092 | 2,079 |
| Franklin | 11,300 | 49 | 0.090 | 1,017 |
| Madison | 10,300 | 69 | 0.045 | 463 |
| | | | | <u>137,355</u> |

$$\text{Total annual base year day use (rounded)} = 137,000$$

(1) One-half of county population

| CORPS OF ENGINEERS RECREATIONAL—USE SURVEY | | | | | | | | | | | | | | | PROJECT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|----|------------------------------|----|-----|---------------------|----------------|----|----------------------------------|----|---------------|---------------|--------------------|----|----------|---------|----------------|----|--|----|------------|----|-------------------------|----|----------|----|--------------|----|------------------|----|------------------|----|-------|----|------|----|--------------------|----|-----------------|----|----------------|----|-----------------|----|-------------------------------|----|-------------------|----|-----------|----|-----------------------------|----|--|--|
| AREA | | DATE | | | MO. | | | YR. | | | DISTRICT | | | MADE BY | | WEEK | | SHEET | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | DAY | | | 1 2 3 4 5 6 | | | 1 2 3 4 5 6 | | | 7 8 | | | END | | NUMBER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 13 14 | | | WEATHER | | | START OF PERIOD | | | 15 16 | | | 17 18 | | 19 | | 20 21 22 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SURVEY NUMBER | | 23 | | | WEEKDAY % (MON-FRI) | | | 24 25 26 | | | END OF PERIOD | | | 27 28 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WEEKLY DISTRIBUTION OF VEHICLES | | 23 | | | 24 25 26 | | | 27 28 | | | 29 30 31 | | | 32 33 34 | | 35 36 37 38 39 | | 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| LINE NUMBER | | NUMBER OF PERSONS IN VEHICLE | | FEE | | ANNUAL STICKER | | ENTRANCE AND USER FEES PAID (\$) | | OVERNIGHT USE | | CAMPING ON PROJECT | | TYPE | | FISHING | | HUNTING | | PICNICKING | | USING PICNIC FACILITIES | | SWIMMING | | WATER SKIING | | PLEASURE BOATING | | SIGHTSEEING ONLY | | OTHER | | TYPE | | CAMPING ON PROJECT | | STAYING IN AREA | | DAY USE (Hrs.) | | VISITS PER YEAR | | DISTANCE TO RESIDENCE (Miles) | | STATE—COUNTY CODE | | FLAG—LC=3 | | RESIDENCE (city and county) | | | |
| 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | | |
| 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | | |

SAMPLE

Chart 1

PLAN FORMULATION STUDIES - RECREATION : ESTIMATING INITIAL PROJECT RECREATION USE



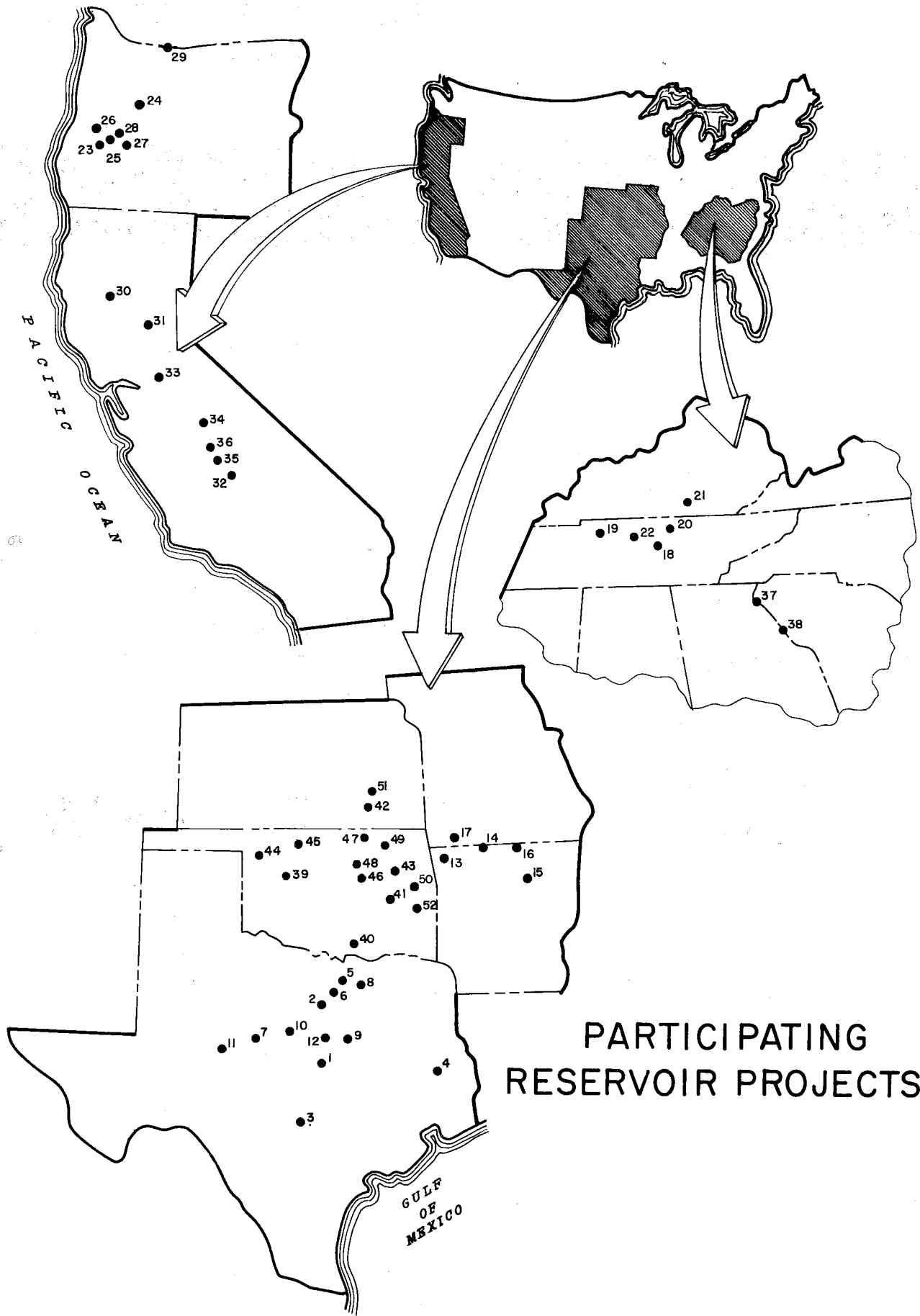
**TECHNICAL REPORT No. 2
OCTOBER 1969**

PLAN FORMULATION AND EVALUATION STUDIES-RECREATION

**estimating
initial
reservoir
recreation
use**

APPENDIX A

PROJECT DATA



PROJECT DATA

List of Projects

| <u>District</u> | <u>Project</u> | <u>Page No.</u> | <u>District</u> | <u>Project</u> | <u>Page No.</u> |
|-----------------|------------------|-----------------|-----------------|-------------------|-----------------|
| Fort Worth | Belton | A-5, 6, 7 | Savannah | Clark Hill | A-149, 150, 151 |
| | Benbrook | A-9, 10, 11 | | Hartwell | A-153, 154, 155 |
| | Canyon | A-13, 14, 15 | Tulsa | Canton | A-157, 158, 159 |
| | Dam B | A-17, 18, 19 | | Denison | A-161, 162, 163 |
| | Garza-Little Elm | A-21, 22, 23 | | Eufaula | A-165, 166, 167 |
| | Grapevine | A-25, 26, 27 | | Fall River | A-169, 170, 171 |
| | Hords Creek | A-29, 30, 31 | | Fort Gibson | A-173, 174, 175 |
| | Lavon | A-33, 34, 35 | | Fort Supply | A-177, 178, 179 |
| | Navarro Mills | A-37, 38, 39 | | Great Salt Plains | A-181, 182, 183 |
| | Proctor | A-41, 42, 43 | | Heyburn | A-185, 186, 187 |
| | San Angelo | A-45, 46, 47 | | Hulah | A-189, 190, 191 |
| | Whitney | A-49, 50, 51 | | Keystone | A-193, 194, 195 |
| | | | | Oologah | A-197, 198, 199 |
| Little Rock | Beaver | A-53, 54, 55 | | Tenkiller | A-201, 202, 203 |
| | Bull Shoals | A-57, 58, 59 | | Toronto | A-205, 206, 207 |
| | Greers Ferry | A-61, 62, 63 | | Wister | A-209, 210, 211 |
| | Norfolk | A-65, 66, 67 | | | |
| | Table Rock | A-69, 70, 71 | | | |
| Nashville | Center Hill | A-73, 74, 75 | | | |
| | Cheatham | A-77, 78, 79 | | | |
| | Dale Hollow | A-81, 82, 83 | | | |
| | Lake Cumberland | A-85, 86, 87 | | | |
| | Old Hickory | A-89, 90, 91 | | | |
| Portland | Cottage Grove | A-93, 94, 95 | | | |
| | Detroit | A-97, 98, 99 | | | |
| | Dorena | A-101, 102, 103 | | | |
| | Fern Ridge | A-105, 106, 107 | | | |
| | Hills Creek | A-109, 110, 111 | | | |
| | Lookout Point | A-113, 114, 115 | | | |
| | The Dalles | A-117, 118, 119 | | | |
| Sacramento | Black Butte | A-121, 122, 123 | | | |
| | Englebright | A-125, 126, 127 | | | |
| | Isabella | A-129, 130, 131 | | | |
| | New Hogan | A-133, 134, 135 | | | |
| | Pine Flat | A-137, 138, 139 | | | |
| | Success | A-141, 142, 143 | | | |
| | Terminus | A-145, 146, 147 | | | |

PERTINENT DATA

Project Name: **Belton Reservoir** District: **Fort Worth**

Project Location:

State or States: **Texas**

County or Counties: **Bell & Coryell**

River or Rivers: **Leon**

Major Highway Access Routes: **State 317 & 236**

Project Purposes: **Flood control & conservation**

Year Impoundment Began: **1954**

Pool Size:

Maximum: Acre Feet **1,097,600**

Surface Acres **23,620**

Shoreline Miles **Not Available**

Average Recreation: Surface Acres **7,400**

Shoreline Miles **110**

Number of Access Areas: **13**

Recreation Facilities:

Tent and Trailer Spaces: **126**

Day Use Areas (Capacity in Recreation Days) ^{1/} **16,200**

Boat Launch Lanes: **27**

| | | |
|-------------------------------|------|-----------|
| Attendance (Recreation Days): | 1968 | 1,551,400 |
| | 1967 | 1,888,600 |
| | 1966 | 1,793,200 |
| | 1965 | 1,606,000 |
| | 1964 | 1,728,600 |

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|-----|------|------|------|------|------|-------|
| | 8.8 | 10.9 | 13.6 | 15.1 | 14.1 | 7.7 | 70.2 |

^{1/} Average weekend day of peak month of use.

BELTON RESERVOIR

COMPETING WATER-ORIENTED RECREATION AREAS

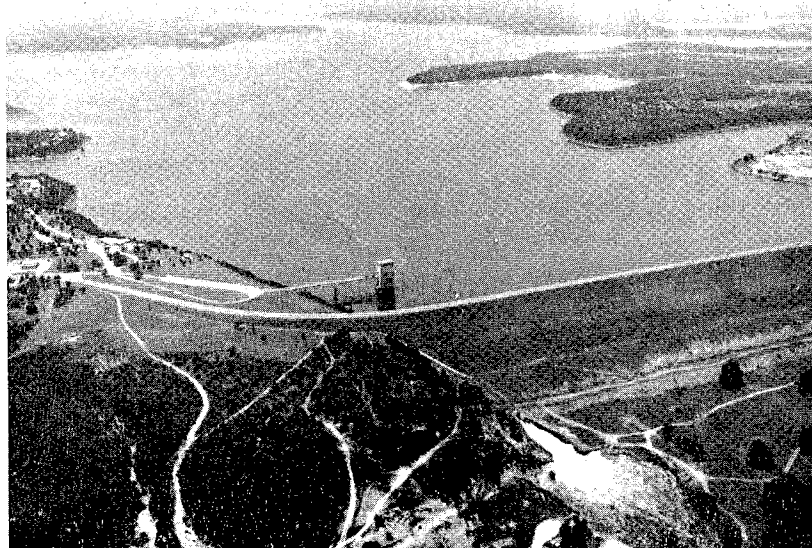
| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ | | RECREATION FACILITIES | | ESTIMATED ANNUAL ATTENDANCE |
|---------------------|--------------------------|-------------------|-------|-----------------------|---------|--------------------------------|
| | | 0-25 | 25-50 | PUBLIC | PRIVATE | |
| Brazos River | 25-50 | | 50 | No | Yes | 36,500 (1967) |
| Lampasas River | 0-50 | 40 | 40 | No | Yes | 58,400 (1967) |
| Leon River | 0-50 | 40 | 35 | No | Yes | 54,750 (1967) |
| Middle Bosque River | 25-50 | | 20 | No | Yes | 14,600 (1967) |
| San Gabriel River | 25-50 | | 80 | No | Yes | 58,400 (1967) |
| Waco Reservoir | 0-50 | | 7,270 | Yes | No | 1,204,600 (1967) |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

BELTON RESERVOIR

1. Reservoir description. - Belton Reservoir is located in the Leon River Valley of Bell and Coryell Counties 16.7 miles upstream from the confluence of the Leon and Little Rivers and is about 3 miles north of Belton, Texas, and about 8 miles west of Temple, Texas. The surrounding area is characterized by buttes, mesas, and divides with stands of oak, elm, mesquite, juniper, and ash. The terrain in the area ranges from flats in the narrow valley of the flood plains of the Leon River and Cowhouse Creek to steep slopes and near vertical bluffs in the uplands. The project area comprises 24,225 acres in fee of which 7,400 are in the pool at the conservation pool level, and 3,268 acres are in the 14 designated park areas.

2. Recreational resources. - Access to the reservoir is provided by three state highways, State (Farm to Market) highways, and county gravel and hard surface roads. The climate of the reservoir area is characterized by moderately humid and generally mild temperatures. All types of water-oriented recreation activities are allowed. Fishing, swimming, picnicking, and sightseeing are the more popular activities. There are many motels in the area and five subdivisions around the reservoir. The towns of Belton, Temple, and Killeen as well as Fort Hood are all within 10 miles of the reservoir and contribute about 70 percent of the visitation. About 90 percent of the visitation originates from within the 50-mile zone of influence which has an estimated population of 381,000. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: Benbrook

District: Fort Worth

Project Location:

State or States: Texas

County or Counties: Tarrant

River or Rivers: Clear Fork of Trinity

Major Highway Access Routes: U.S. 377

Project Purposes: Flood control & conservation

Year Impoundment Began: 1952

Pool Size:

Maximum: Acre Feet 164,800

Surface Acres 5,820

Shoreline Miles 82

Average Recreation: Surface Acres 3,770

Shoreline Miles 40

Number of Access Areas: 5

Recreation Facilities:

Tent and Trailer Spaces: 70

Day Use Areas (Capacity in Recreation Days) ^{1/} 21,700

Boat Launch Lanes: 22

| | | |
|-------------------------------|------|-----------|
| Attendance (Recreation Days): | 1968 | 2,387,900 |
| | 1967 | 1,995,500 |
| | 1966 | 1,849,400 |
| | 1965 | 1,689,400 |
| | 1964 | 1,526,800 |

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|------|------|------|------|------|------|-------|
| | 10.7 | 12.1 | 14.0 | 18.1 | 12.1 | 6.6 | 73.6 |

^{1/} Average weekend day of peak month of use.

BENBROOK RESERVOIR

COMPETING WATER-ORIENTED RECREATION AREAS

| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ 0-25 25-50 | | RECREATION FACILITIES PUBLIC PRIVATE | | ESTIMATED ANNUAL ATTENDANCE |
|-------------------------------|--------------------------|---------------------------------|--------|---|---------|--------------------------------|
| | | 0-25 | 25-50 | PUBLIC | PRIVATE | |
| Brazos River | 0-50 | 25 | 50 | No | Yes | 55,000 (1967) |
| Bridgeport Lake | 25-50 | | 10,399 | Yes | Yes | 1,500,000 (1967) |
| Cleburn Reservoir | 0-25 | 1,545 | | Yes | Yes | 270,000 (1967) |
| Eagle Mountain Lake | 25-50 | | 8,500 | Yes | Yes | 1,000,000 (1967) |
| Garza-Little Elm Reservoir | 25-50 | | 23,280 | Yes | No | 2,206,800 (1967) |
| Grapevine Reservoir | 25-50 | | 7,380 | Yes | No | 2,807,200 (1967) |
| Lake Arlington | 25-50 | | 2,275 | Yes | Yes | 750,000 (1967) |
| Lake North | 25-50 | | 820 | Yes | Yes | 15,000 (1967) |
| Lake Waxahachie | 25-50 | | 645 | Yes | Yes | 120,000 (1967) |
| Lake Weatherford | 25-50 | | 1,280 | Yes | Yes | 238,000 (1967) |
| Lake Worth | 25-50 | | 3,267 | Yes | Yes | 600,000 (1967) |
| Mountain Creek Reservoir | 25-50 | | 2,950 | Yes | Yes | 500,000 (1967) |
| Whitney Reservoir | 25-50 | | 15,760 | Yes | No | 3,102,500 (1967) |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

BENBROOK RESERVOIR

1. Reservoir description. - Benbrook Reservoir is located on the Clear Fork of the Trinity River 15 river miles upstream of its confluence with the West Fork of the Trinity River in Tarrant County, Texas. The area within the reservoir limits is characterized by a gently sloping valley bordered by abrupt, steep slopes on the east and south sides and by more gradual slopes on the north and west sides. Timber in the reservoir area is sparse except along the streambanks. The project has 2,896 acres in the 5 designated park areas and 3,770 surface acres at the conservation pool level available for recreation.

2. Recreational resources. - U. S. Highway No. 377 extending west-southwest from Fort Worth passes within one-half mile of the west end of the dam and crosses the Clear Fork within the reservoir area. A hard surfaced county road extending southwest from Fort Worth provides access to the east end of the dam. Several all weather county roads leading from these two roads provide access to the various park areas. The reservoir lies in a region characterized by a relative mild climate having hot days and warm nights during the summer and comparatively mild temperatures during the winter. All types of water-oriented recreation activities as well as an 18-hole golf course are available. The nearest population center is the Fort Worth metropolitan area which is approximately 12 miles from the reservoir. About 90 percent of the visitation originates from within 25 miles of the reservoir. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: Canyon

District: Fort Worth

Project Location:

State or States: Texas

County or Counties: Comal

River or Rivers: Guadalupe

Major Highway Access Routes: U.S. 81 & 281

Project Purposes: Flood control & conservation

Year Impoundment Began: 1964

Pool Size:

Maximum: Acre Feet 740,900

Surface Acres 12,890

Shoreline Miles 109

Average Recreation: Surface Acres 8,240

Shoreline Miles 80

Number of Access Areas: 7

Recreation Facilities:

Tent and Trailer Spaces: 145

Day Use Areas (Capacity in Recreation Days) 1/ 10,200

Boat Launch Lanes: 37

| | | |
|-------------------------------|------|-----------|
| Attendance (Recreation Days): | 1968 | 1,427,300 |
| | 1967 | 1,112,900 |
| | 1966 | 956,000 |
| | 1965 | 631,400 |
| | 1964 | 94,500 |

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|------|------|------|------|------|------|-------|
| | 12.4 | 10.1 | 12.7 | 15.9 | 12.1 | 7.2 | 70.4 |

1/ Average weekend day of peak month of use.

CANYON RESERVOIR

COMPETING WATER-ORIENTED RECREATION AREAS

| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ | | RECREATION FACILITIES | | ESTIMATED ANNUAL ATTENDANCE |
|---------------------|--------------------------|-------------------|--------|-----------------------|---------|--------------------------------|
| | | 0-25 | 25-50 | PUBLIC | PRIVATE | |
| Guadalupe River | 0-50 | 30 | 35 | Yes | Yes | 47,500 (1967) |
| Lake Austin | 25-50 | | 1,830 | Yes | Yes | 350,000 (1967) |
| Lake McQueeney | 0-25 | 396 | | Yes | Yes | 50,000 (1967) |
| Lake Travis | 25-50 | | 29,000 | Yes | Yes | 750,000 (1967) |
| Lake Victor Braunig | 25-50 | | 1,350 | Yes | Yes | 250,000 (1967) |
| Pedernales River | 25-50 | | 50 | No | Yes | 36,500 (1967) |
| San Marcos River | 0-50 | 10 | 25 | Yes | Yes | 25,000 (1967) |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

CANYON RESERVOIR

1. Reservoir description. - Canyon Reservoir is located at river mile 303.0 on the Guadalupe River about 12 airline miles northwest of New Braunfels, Texas. The reservoir is entirely within the Edwards Plateau physiographical province of Texas. The Edwards Plateau region is an area of rocky, rugged hills and narrow valleys and is sharply accentuated by the steep hills and limestone bluffs that mark the Balcones Escarpment. The tree cover in the area consists of cedar, oak, elm, sycamore, pecan, hackberry, mesquite, cottonwood, and cypress. The project has 1,511 acres in the 7 designated park areas and 8,240 surface acres at the conservation pool level available for recreation.

2. Recreation resources. - Canyon Reservoir is readily accessible over hard-surfaced federal and state highways and county roads. The reservoir lies to the northwest of U. S. Highway No. 81 and to the east of U. S. Highway No. 281, two of the major traffic arteries in the state of Texas. Canyon Reservoir lies in a moderately humid region and experiences a generally mild climate. The summer days are hot and the nights cool and the winters are normally short and comparatively mild. All types of water-oriented recreation activities are allowed. Fishing, swimming, picnicking, and sightseeing are the more popular activities during the season. There are many motels in the area and subdivisions are springing up all around the reservoir. The nearest population center is the San Antonio metropolitan area which is approximately 45 miles from the reservoir. About 60 percent of the visitation originates from within the 50 mile zone of influence and about 25 percent originates beyond the 100 mile zone of influence. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: **Dam "B"**

District: **Fort Worth**

Project Location:

State or States: **Texas**

County or Counties: **Jasper & Tyler**

River or Rivers: **Neches**

Major Highway Access Routes: **U.S. 190, State 92**

Project Purposes: **Conservation**

Year Impoundment Began: **1951**

Pool Size:

Maximum: Acre Feet **124,700**

Surface Acres **16,830**

Shoreline Miles **59**

Average Recreation: Surface Acres **13,700**

Shoreline Miles **55**

Number of Access Areas: **8**

Recreation Facilities:

Tent and Trailer Spaces: **274**

Day Use Areas (Capacity in Recreation Days) ^{1/} **6,250**

Boat Launch Lanes: **18**

Attendance (Recreation Days): 1968 **654,300**

1967 **683,200**

1966 **876,700**

1965 **874,300**

1964 **816,200**

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|------|------|------|------|------|------|-------|
| | 11.9 | 10.2 | 16.4 | 17.7 | 13.6 | 7.5 | 77.3 |

^{1/} Average weekend day of peak month of use.

DAM "B" RESERVOIR

COMPETING WATER-ORIENTED RECREATION AREAS

| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ | | | RECREATION FACILITIES | | ESTIMATED ANNUAL ATTENDANCE |
|-----------------------|--------------------------|-------------------|---------|--|-----------------------|---------|--------------------------------|
| | | 0-25 | 25-50 | | PUBLIC | PRIVATE | |
| Neches River | 0-50 | 15 | 25 | | No | Yes | 30,000 (1967) |
| Sabine River | 25-50 | | 80 | | No | Yes | 58,400 (1967) |
| Sam Rayburn Reservoir | 25-50 | | 113,400 | | Yes | No | 2,172,000 (1967) |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

DAM "B" RESERVOIR

1. Reservoir description.- Dam "B" is located on the Neches River in the east-central and west-central portions of Tyler and Jasper Counties. The land within the reservoir area is characterized by low rolling hills in the upland portion through which the Neches River has cut a relatively narrow valley. The timber in the area consists of virgin and second growth timber including pine, oak, sweet gum, sour gum, pecan, dogwood, magnolia, cypress, and walnut. The project has 1,718 acres in the eight designated park areas and 13,700 surface acres at the conservation pool level available for recreation. The Texas Parks and Wildlife Department has leased three of the designated park areas and has developed them into a state park.

2. Recreation resources.- Dam "B" is readily accessible from U. S. Highway 190 which crosses the reservoir about 4 miles above the damsite between Woodville and Jasper, Texas. State (Farm-to-Market) Highway 92 lies adjacent to the southwest quadrant of the reservoir and passes in front of the project office. Dam "B" lies in a region characterized by comparatively long, hot, humid summers and moderate winters. All types of water oriented recreation activities are allowed. Fishing, sightseeing, and camping are the more popular activities during the season. Most of the motels are about 15 miles from the project and the subdivisions are small in size and number. The nearest large population center is the Beaumont metropolitan area, which is approximately 55 miles from the reservoir. About 37 percent of the visitation originates from within 50 miles of the reservoir and 84 percent from within the 100 mile zone of influence. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: Garza-Little Elm District: Fort Worth

Project Location:

State or States: Texas

County or Counties: Denton

River or Rivers: Elm Fork of Trinity

Major Highway Access Routes: I-35E, U.S. 77, State 121 & 24

Project Purposes: Flood control & conservation

Year Impoundment Began: 1954

Pool Size:

Maximum: Acre Feet 989,700

Surface Acres 39,080

Shoreline Miles Not Available

Average Recreation: Surface Acres 22,970

Shoreline Miles 183

Number of Access Areas: 21

Recreation Facilities:

Tent and Trailer Spaces: 230

Day Use Areas (Capacity in Recreation Days) 1/ 17,700

Boat Launch Lanes: 66

| | | |
|-------------------------------|------|-----------|
| Attendance (Recreation Days): | 1968 | 2,137,400 |
| | 1967 | 2,206,800 |
| | 1966 | 2,166,500 |
| | 1965 | 2,371,500 |
| | 1964 | 2,515,900 |

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|-----|------|------|------|------|------|-------|
| | 9.7 | 11.2 | 14.3 | 14.2 | 13.2 | 9.7 | 72.3 |

1/ Average weekend day of peak month of use.

GARZA-LITTLE ELM RESERVOIR

COMPETING WATER-ORIENTED RECREATION AREAS

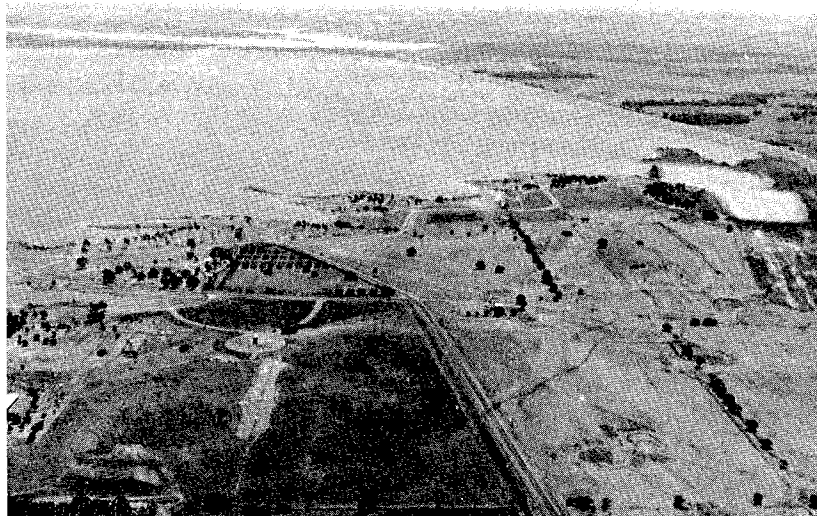
| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ | | RECREATION FACILITIES | | ESTIMATED ANNUAL ATTENDANCE |
|--------------------------|--------------------------|-------------------|--------|-----------------------|---------|--------------------------------|
| | | 0-25 | 25-50 | PUBLIC | PRIVATE | |
| Benbrook Reservoir | 25-50 | | 3,770 | Yes | No | 1,995,500 (1967) |
| Eagle Mountain Reservoir | 25-50 | | 8,500 | Yes | Yes | 1,000,000 (1967) |
| Grapevine Reservoir | 0-25 | 7,380 | | Yes | No | 2,807,200 (1967) |
| Lake Arlington | 25-50 | | 2,275 | Yes | Yes | 750,000 (1967) |
| Lake Weatherford | 25-50 | | 1,280 | Yes | Yes | 238,000 (1967) |
| Lake Worth | 25-50 | | 3,267 | Yes | Yes | 600,000 (1967) |
| Lavon Reservoir | 25-50 | | 11,080 | Yes | No | 2,694,100 (1967) |
| Mountain Creek Reservoir | 25-50 | | 2,940 | Yes | Yes | 500,000 (1967) |
| North Lake | 0-25 | 820 | | Yes | Yes | 15,000 (1967) |
| Trinity River | 0-50 | 25 | 25 | No | Yes | 36,500 (1967) |
| White Rock Lake | 0-25 | 1,095 | | Yes | Yes | 185,000 (1967) |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

GARZA-LITTLE ELM RESERVOIR

1. Reservoir description. - Garza-Little Elm Reservoir is located on the Elm Fork of the Trinity River about one mile north of Lewisville, Texas, and lies entirely within Denton County. The area within the reservoir limits is characterized by a rather broad valley bordered by fairly steep slopes rising to the gently rolling upland areas. Most of the area was in cultivation or used as pasture prior to the construction of the dam. The project has 5,366 acres in the 21 designated park areas and has 22,970 surface acres at the conservation pool level available for recreation.

2. Recreation resources. - The reservoir is readily accessible by hard surface FM highways and county roads which connect with the following highways: Interstate Highway 35E, U. S. Highway 77, State Highway 121, and State Highway 24. The reservoir is located in a region characterized by a relatively mild climate. The summer days are hot, the nights warm, and the winter periods are normally short and comparatively mild. All types of water-oriented recreation activities are allowed. Pleasure boating, picnicking, fishing, water skiing, and swimming are the more popular activities during the season. There are several motels and subdivisions around the reservoir. The reservoir is within 20 miles of the Dallas metropolitan area and about 10 miles from Denton, Texas. Approximately 95 percent of the visitation originates within 25 miles of the reservoir. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: Grapevine District: Fort Worth

Project Location:

State or States: Texas

County or Counties: Denton & Tarrant

River or Rivers: Denton Creek

Major Highway Access Routes: U.S. 377, State 121 & 114

Project Purposes: Flood control & conservation

Year Impoundment Began: 1952

Pool Size:

Maximum: Acre Feet 435,500

Surface Acres 12,740

Shoreline Miles Not Available

Average Recreation: Surface Acres 7,380

Shoreline Miles 60

Number of Access Areas: 12

Recreation Facilities:

Tent and Trailer Spaces: 216

Day Use Areas (Capacity in Recreation Days) ^{1/} 32,120

Boat Launch Lanes: 24

| | | |
|-------------------------------|------|-----------|
| Attendance (Recreation Days): | 1968 | 2,704,100 |
| | 1967 | 2,809,200 |
| | 1966 | 2,389,800 |
| | 1965 | 2,026,300 |
| | 1964 | 2,011,100 |

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|-----|------|------|------|------|------|-------|
| | 8.1 | 13.9 | 15.8 | 18.9 | 14.0 | 7.0 | 77.7 |

^{1/} Average weekend day of peak month of use.

GRAPEVINE RESERVOIR

COMPETING WATER-ORIENTED RECREATION AREAS

| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ | | RECREATION FACILITIES | | ESTIMATED ANNUAL ATTENDANCE |
|----------------------------|--------------------------|-------------------|--------|-----------------------|---------|--------------------------------|
| | | 0-25 | 25-50 | PUBLIC | PRIVATE | |
| Bardwell Reservoir | 25-50 | | 3,570 | Yes | No | 487,500 (1967) |
| Benbrook Reservoir | 25-50 | | 3,770 | Yes | No | 1,995,500 (1967) |
| Eagle Mountain Reservoir | 0-25 | 8,500 | | Yes | Yes | 1,000,000 (1967) |
| Garza-Little Elm Reservoir | 0-25 | 23,280 | | Yes | No | 2,206,800 (1967) |
| Lake Arlington | 25-50 | | 2,275 | Yes | Yes | 750,000 (1967) |
| Lake Weatherford | 25-50 | | 1,280 | Yes | Yes | 238,000 (1967) |
| Lake Worth | 25-50 | | 3,267 | Yes | Yes | 600,000 (1967) |
| Lavon Reservoir | 25-50 | | 11,080 | Yes | No | 2,694,100 (1967) |
| Mountain Creek Reservoir | 0-25 | 2,940 | | Yes | Yes | 500,000 (1967) |
| North Lake | 0-25 | | 820 | Yes | Yes | 15,000 (1967) |
| Trinity River | 0-50 | | 25 | No | Yes | 400,000 (1967) |
| White Rock Lake | 0-25 | 1,095 | | Yes | Yes | 185,000 (1967) |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

GRAPEVINE RESERVOIR

1. Reservoir description. - Grapevine Reservoir is located on Denton Creek about 20 miles northwest of the city of Dallas, and about 20 miles northeast of Fort Worth. The reservoir occupies portions of Tarrant and Denton Counties, Texas. The valley throughout the reservoir area is flanked by fairly steep, irregular hills. Prior to construction, most of the reservoir area was cultivated or used for grazing, and about 3 percent of the area was covered with scrub oak and brush. The project has 3,863 acres in the 12 designated park areas and 7,380 surface acres at the conservation pool level available for recreation.

2. Recreation resources. - Grapevine Reservoir is readily accessible from U. S. Highway 377 which crosses the reservoir in the upper reaches, State Highway 114, which parallels the southwestern shoreline, and State Highway 121, which crosses Denton Creek just downstream from the dam. The project lies in a region characterized by a relatively mild climate. Summers are long, with high day and warm night temperatures and the winter periods are normally short and comparatively mild. All types of water-oriented recreation activities are allowed. Water skiing, swimming, fishing and picnicking are the more popular activities during the season. The nearest large population center is the Dallas-Fort Worth metropolitan area, which is approximately 20 miles from the project. About 95 percent of the visitation originates from within 25 miles of the project. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: Hords Creek District: Fort Worth

Project Location:

State or States: Texas

County or Counties: Coleman

River or Rivers: Hords Creek

Major Highway Access Routes: State 53

Project Purposes: Flood control & conservation

Year Impoundment Began: 1948

Pool Size:

Maximum: Acre Feet 25,310

Surface Acres 1,260

Shoreline Miles 18

Average Recreation: Surface Acres 510

Shoreline Miles 11

Number of Access Areas: 3

Recreation Facilities:

Tent and Trailer Spaces: 50

Day Use Areas (Capacity in Recreation Days) 1/ 2,580

Boat Launch Lanes: 14

| | | |
|-------------------------------|------|---------|
| Attendance (Recreation Days): | 1968 | 136,500 |
| | 1967 | 204,100 |
| | 1966 | 201,000 |
| | 1965 | 204,400 |
| | 1964 | 232,500 |

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|-----|------|------|------|------|------|-------|
| | 7.4 | 11.2 | 16.9 | 19.6 | 17.5 | 10.1 | 82.7 |

1/ Average weekend day of peak month of use.

HORDS CREEK RESERVOIR

COMPETING WATER-ORIENTED RECREATION AREAS

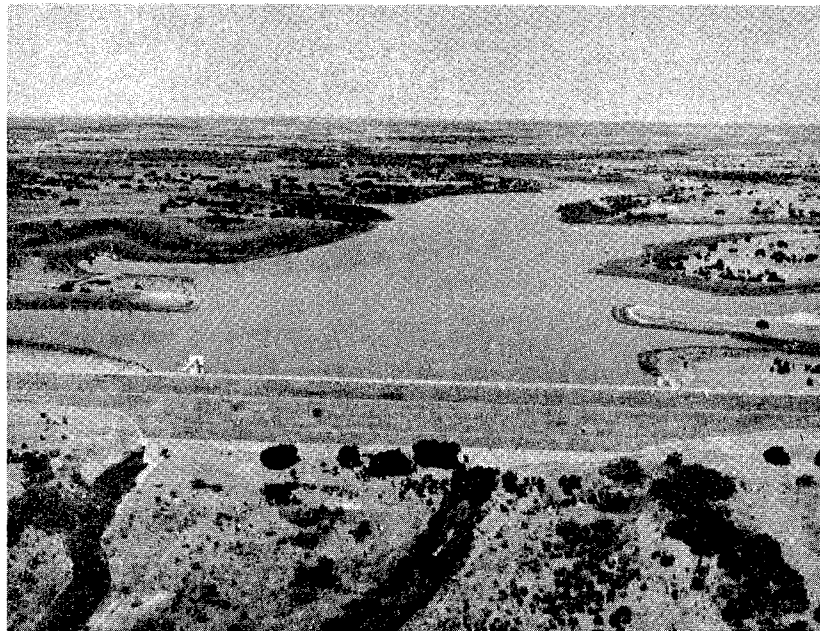
| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ | | RECREATION FACILITIES | | ESTIMATED ANNUAL ATTENDANCE |
|---------------------|--------------------------|-------------------|-------|-----------------------|---------|--------------------------------|
| | | 0-25 | 25-50 | PUBLIC | PRIVATE | |
| Coleman Lake | 0-25 | 2,000 | | Yes | Yes | 375,000 (1967) |
| Colorado River | 0-50 | 32 | 55 | No | Yes | 60,000 (1967) |
| Concho River | 25-50 | | 30 | No | Yes | 22,000 (1967) |
| Lake Abilene | 25-50 | | 641 | Yes | Yes | 100,000 (1967) |
| Lake Brownwood | 0-25 | 7,300 | | Yes | Yes | 500,000 (1967) |
| Lake Graham | 25-50 | | 2,550 | Yes | Yes | 450,000 (1967) |
| Lake Lawn | 25-50 | 40 | | No | Yes | 7,500 (1967) |
| Lake Santa Anna | 0-25 | 40 | | No | Yes | 7,500 (1967) |
| Lake Scarborough | 0-25 | 150 | | No | Yes | 25,000 (1967) |
| Lake Winters | 0-25 | 175 | | No | Yes | 32,000 (1967) |
| Oak Creek Reservoir | 25-50 | 2,375 | | Yes | Yes | 400,000 (1967) |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

HORDS CREEK RESERVOIR

1. Reservoir description. - Hords Creek Reservoir is located in the Colorado River Basin on Hords Creek in the central part of Coleman County, Texas. The land within the reservoir area is characterized by low rolling hills through which Hords Creek has cut a relatively narrow valley. In general, the area is covered with scattered growths of live oak, mesquite, and other species of trees. The project has 1,215 acres in the three designated park areas and 510 surface acres at conservation pool level available for recreation.

2. Recreation resources. - The reservoir area is primarily served by the hard surfaced State (Farm-to-Market) Highway No. 53, which extends to the west from Coleman, Texas along the northern boundary of the project. Graveled county roads parallel the reservoir on the south and west. Hords Creek Reservoir lies in a semi-arid region characterized by moderate winters and comparatively long summers. All types of water-oriented recreation activities are allowed. Fishing, picnicking, swimming and camping are the more popular activities during the season. There are few motels near the area and no subdivisions. The nearest large population center is Abilene, Texas, which is approximately 45 miles from the project. Approximately 65 percent of the visitation originates from within 25 miles of the project, 84 percent from within 50 miles, and about 12 percent is from beyond 100 miles. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: **Lavon** District: **Fort Worth**

Project Location:

State or States: **Texas**

County or Counties: **Collin**

River or Rivers: **East Fork of Trinity**

Major Highway Access Routes: **State 24 & 78**

Project Purposes: **Flood control & conservation**

Year Impoundment Began: **1953**

Pool Size:

| | |
|--------------------|---------------|
| Maximum: Acre Feet | 423,400 |
| Surface Acres | 20,050 |
| Shoreline Miles | Not Available |

| | |
|-----------------------------------|--------|
| Average Recreation: Surface Acres | 11,080 |
|-----------------------------------|--------|

| | |
|-----------------|-----|
| Shoreline Miles | 8.3 |
|-----------------|-----|

| | |
|-------------------------|----|
| Number of Access Areas: | 11 |
|-------------------------|----|

Recreation Facilities:

| | |
|--------------------------|-----|
| Tent and Trailer Spaces: | 128 |
|--------------------------|-----|

| | |
|---|--------|
| Day Use Areas (Capacity in Recreation Days) ^{1/} | 23,120 |
|---|--------|

| | |
|--------------------|----|
| Boat Launch Lanes: | 42 |
|--------------------|----|

| | | |
|-------------------------------|------|-----------|
| Attendance (Recreation Days): | 1968 | 2,766,900 |
| | 1967 | 2,694,100 |
| | 1966 | 2,376,900 |
| | 1965 | 3,077,000 |
| | 1964 | 3,364,700 |

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|------|------|------|------|------|------|-------|
| | 10.4 | 10.4 | 11.9 | 13.9 | 10.1 | 7.4 | 64.1 |

^{1/} Average weekend day of peak month of use.

LAVON RESERVOIR

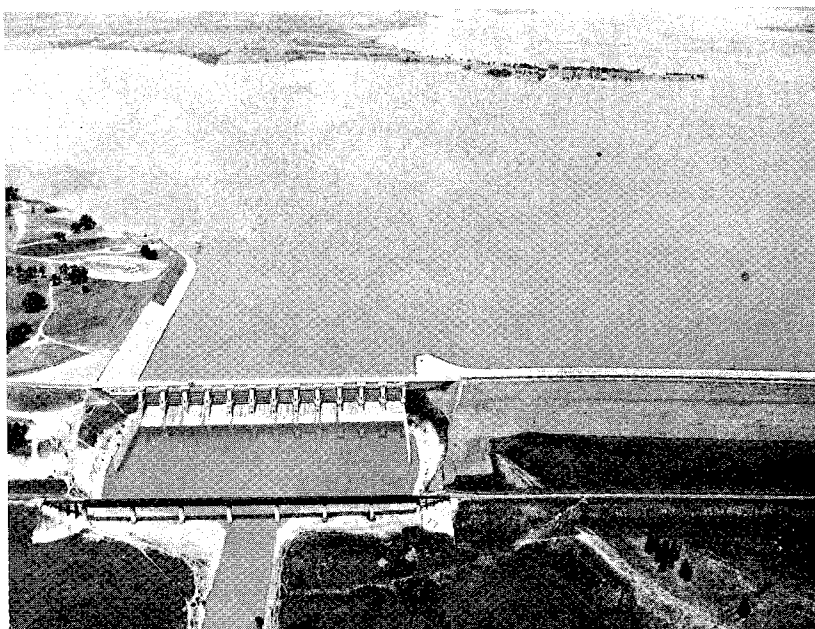
COMPETING WATER-ORIENTED RECREATION AREAS

| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ | | RECREATION FACILITIES | | ESTIMATED ANNUAL ATTENDANCE |
|----------------------------|--------------------------|-------------------|--------|-----------------------|---------|--------------------------------|
| | | 0-25 | 25-50 | PUBLIC | PRIVATE | |
| Brush Creek Reservoir | 25-50 | | 1,180 | Yes | No | 200,000 (1967) |
| Garza-Little Elm Reservoir | 25-50 | | 23,280 | Yes | No | 2,206,800 (1967) |
| Grapevine Reservoir | 25-50 | | 7,380 | Yes | No | 2,807,200 (1967) |
| Lake Tawakoni | 25-50 | | 36,700 | Yes | Yes | 2,500,000 (1967) |
| Mountain Creek Reservoir | 25-50 | | 2,940 | Yes | Yes | 500,000 (1967) |
| North Lake | 25-50 | | 820 | Yes | No | 15,000 (1967) |
| Terrell Lake | 25-50 | | 885 | Yes | No | 150,000 (1967) |
| White Rock Lake | 0-25 | 1,095 | | Yes | Yes | 185,000 (1967) |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

LAVON RESERVOIR

1. Reservoir description. - Lavon Dam is located on the East Fork of the Trinity River in the southeast portion of Collin County, Texas. The area within the reservoir limits is characterized by a gently sloping valley bordered by moderate sloping banks. Most of the valley land and slopes are cultivated or utilized as pasture; the remainder is covered with a fairly heavy growth of native timber. The project has 1,204 acres in the eleven designated park areas and 11,080 surface acres at the conservation pool level available for recreation.
2. Recreation resources. - Lavon Reservoir is readily accessible either by direct access or all-weather county roads which connect with State Highways 24 and 78. The reservoir lies in a region characterized by relatively mild climate. The summer days are hot, the nights warm, and the winter periods are normally short and comparatively mild. All types of water-oriented recreation activities are allowed. Fishing, picnicking, swimming, water skiing, and pleasure boating are the more popular activities during the season. There are few motels near the reservoir, but there are several subdivisions around the perimeter. The largest population center near the reservoir is the Dallas metropolitan area, which is about 30 miles from the project. Nearly all of the visitation originates within 30 miles of the reservoir. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: **Navarro Mills** District: **Fort Worth**

Project Location:

State or States: **Texas**

County or Counties: **Navarro & Hill**

River or Rivers: **Richland Creek**

Major Highway Access Routes: **State 171, 31 & 22**

Project Purposes: **Flood control & conservation**

Year Impoundment Began: **1963**

Pool Size:

Maximum: Acre Feet 212,000

Surface Acres 11,700

Shoreline Miles 97

Average Recreation: Surface Acres 5,070

Shoreline Miles 38

Number of Access Areas: 3

Recreation Facilities:

Tent and Trailer Spaces: 33

Day Use Areas (Capacity in Recreation Days) 1/ 3,280

Boat Launch Lanes: 12

| | | |
|-------------------------------|------|---------|
| Attendance (Recreation Days): | 1968 | 407,200 |
| | 1967 | 409,200 |
| | 1966 | 401,500 |
| | 1965 | 430,300 |
| | 1964 | 432,100 |

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|-----|------|------|------|------|------|-------|
| | 9.7 | 10.5 | 12.2 | 14.3 | 11.9 | 10.6 | 69.9 |

1/ Average weekend day of peak month of use.

NAVARRO MILLS RESERVOIR

COMPETING WATER-ORIENTED RECREATION AREAS

| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ | | RECREATION FACILITIES | | ESTIMATED ANNUAL ATTENDANCE |
|-----------------------|--------------------------|-------------------|--------|-----------------------|---------|--------------------------------|
| | | 0-25 | 25-50 | PUBLIC | PRIVATE | |
| Bardwell Reservoir | 25-50 | | 3,570 | Yes | No | 487,500 (1967) |
| Brazos River | 25-50 | | 60 | No | Yes | 43,800 (1967) |
| Cedar Creek Reservoir | 25-50 | | 33,750 | Yes | Yes | 750,000 (1967) |
| Lake Halbert | 0-25 | 650 | | No | Yes | 60,000 (1967) |
| Lake Mexia | 25-50 | | 1,200 | Yes | Yes | 200,000 (1967) |
| Lake Springfield | 25-50 | | 750 | Yes | Yes | 197,900 (1966) |
| Lake Trinidad | 25-50 | | 753 | Yes | Yes | 50,000 (1967) |
| Lake Waxahachie | 25-50 | | 645 | Yes | Yes | 120,000 (1967) |
| Waco Reservoir | 25-50 | | 7,260 | Yes | No | 1,204,600 (1967) |
| Whitney Reservoir | 25-50 | | 15,760 | Yes | No | 3,102,500 (1967) |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

NAVARRO MILLS RESERVOIR

1. Reservoir description. - Navarro Mills Dam is located on Richland Creek, 63.9 river miles above its confluence with the Trinity River. The reservoir area is located in Navarro and Hill Counties, Texas, about 16 miles southwest of Corsicana, Texas. The area within the reservoir area varies from steep slopes to rather low flats. The tree growth in the area is very sparse, except for a narrow fringe adjacent to the creek bed and draws. The project has 1,265 acres in the three designated park areas and 5,070 surface acres at the conservation pool level available for recreation.

2. Recreation resources. - Navarro Mills is readily accessible over hard surfaced state highways and county roads. It lies in a region characterized by a generally mild climate having hot summer days and warm nights and comparatively short and mild winters. All types of water-oriented recreation activities are allowed. Picnicking, fishing and swimming are the more popular activities during the season. The nearest population center of any size is Corsicana, Texas, which is about 16 miles from the project. About 70 percent of the visitation originates from within the 50 mile zone of influence and 20 percent from within the 50-100 mile zone of influence. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: Proctor

District: Fort Worth

Project Location:

State or States: Texas

County or Counties: Comanche

River or Rivers: Leon

Major Highway Access Routes: U.S. 377 & 67, State 6

Project Purposes: Flood control & conservation

Year Impoundment Began: 1963

Pool Size:

Maximum: Acre Feet 374,200

Surface Acres 14,010

Shoreline Miles 132

Average Recreation: Surface Acres 4,610

Shoreline Miles 50

Number of Access Areas: 4

Recreation Facilities:

Tent and Trailer Spaces: 98

Day Use Areas (Capacity in Recreation Days) 1/ 5,440

Boat Launch Lanes: 12

Attendance (Recreation Days): 1968 368,400

1967 500,600

1966 411,000

1965 225,600

1964 358,900

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|------|------|------|------|------|------|-------|
| | 13.6 | 14.0 | 13.1 | 16.0 | 11.9 | 8.1 | 76.7 |

1/ Average weekend day of peak month of use.

PROCTOR RESERVOIR

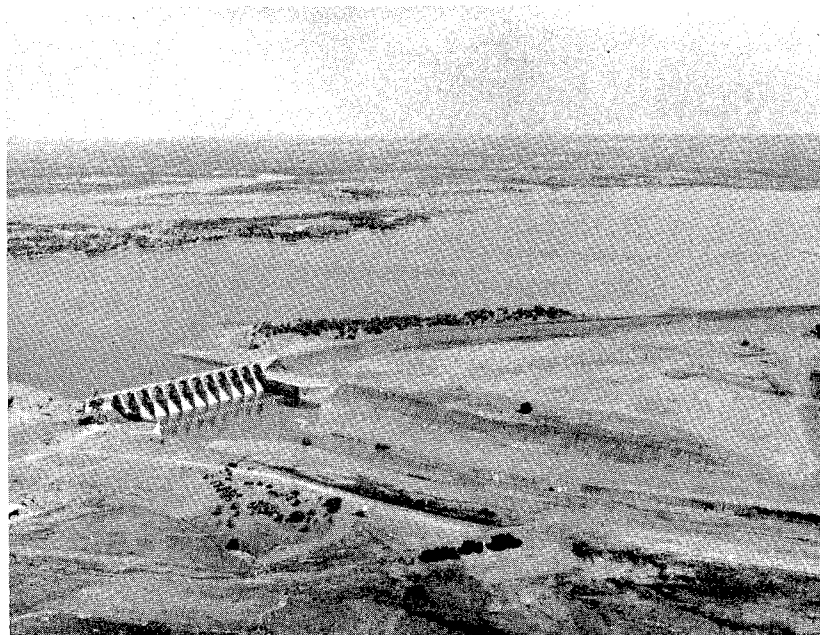
COMPETING WATER-ORIENTED RECREATION AREAS

| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ | | RECREATION FACILITIES | | ESTIMATED ANNUAL ATTENDANCE |
|----------------|--------------------------|-------------------|-------|-----------------------|---------|--------------------------------|
| | | 0-25 | 25-50 | PUBLIC | PRIVATE | |
| Lake Brownwood | 25-50 | | 7,300 | Yes | Yes | 500,000 (1967) |
| Lake Cisco | 25-50 | | 1,050 | Yes | Yes | 75,000 (1967) |
| Lake Comanche | 0-25 | 200 | | No | Yes | 25,000 (1967) |
| Lake Leon | 25-50 | | 1,500 | Yes | Yes | 100,000 (1967) |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

PROCTOR RESERVOIR

1. Reservoir description. - Proctor Dam is located on the Leon River in the east central portion of Comanche County, approximately 8 miles northeast of Comanche, Texas. The area within the reservoir area varies from gentle slopes in the downstream area to low flats in the upstream area. The tree cover adjacent to the Leon River and tributary streams is heavy, consisting of pecan, hackberry, oak, and cottonwood, and in the uplands the tree cover is rather sparse consisting of scrub oak, hackberry and honey locust. The project has 1,390 acres in the four designated park areas and 4,610 surface acres at the conservation pool level available for recreation.
2. Recreation resources. - Proctor Reservoir is readily accessible over hard surfaced roads which connect with U. S. Highways 67 and 377, which cross the river about one mile downstream from the dam, and State Highway 6, which crosses the reservoir in the upper reaches. The project lies in a moderately humid region and experiences a generally mild climate. In summer the days are hot and the nights warm. The winter temperatures are generally mild. All types of water oriented recreation activities are allowed. Fishing, swimming, camping and picnicking are the more popular activities during the season. The project is about 97 miles from Fort Worth, 110 miles from Waco, and 130 miles from Dallas, Texas. About 60 percent of the visitation originates from within the 50 mile zone of influence and 25 percent originates from beyond 100 miles. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: San Angelo District: Fort Worth

Project Location:

State or States: Texas

County or Counties: Tom Green

River or Rivers: North Concho

Major Highway Access Routes: U.S. 87 & 67

Project Purposes: Flood control & conservation

Year Impoundment Began: 1952

Pool Size:

Maximum: Acre Feet 396,400

Surface Acres 12,700

Shoreline Miles 44

Average Recreation: Surface Acres 5,440

Shoreline Miles 27

Number of Access Areas: 5

Recreation Facilities:

Tent and Trailer Spaces: 48

Day Use Areas (Capacity in Recreation Days) 1/ 3,030

Boat Launch Lanes: 29

| | | |
|-------------------------------|------|-----------|
| Attendance (Recreation Days): | 1968 | 324,800 |
| | 1967 | 481,500 |
| | 1966 | 512,900 |
| | 1965 | 830,400 |
| | 1964 | 1,691,700 |

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|------|------|------|------|-----|------|-------|
| | 11.2 | 11.9 | 10.3 | 10.3 | 8.7 | 7.9 | 60.3 |

1/ Average weekend day of peak month of use.

SAN ANGELO RESERVOIR

COMPETING WATER-ORIENTED RECREATION AREAS

| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ | | RECREATION FACILITIES | | ESTIMATED ANNUAL ATTENDANCE |
|-----------------------|--------------------------|-------------------|-------|-----------------------|---------|--------------------------------|
| | | 0-25 | 25-50 | PUBLIC | PRIVATE | |
| Colorado River | 25-50 | | 80 | No | Yes | 58,400 (1967) |
| Concho River | 0-50 | 20 | 25 | No | Yes | 32,850 (1967) |
| Lake Nasworthy | 0-25 | 1,596 | | No | Yes | 100,000 (1967) |
| Oak Creek Reservoir | 25-50 | | 2,375 | Yes | Yes | 400,000 (1967) |
| Twin Buttes Reservoir | 0-25 | 22,680 | | Yes | Yes | 500,000 (1967) |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

SAN ANGELO RESERVOIR

1. Reservoir description. - San Angelo Dam is located on the North Concho River, approximately 2.3 miles northwest of San Angelo, Texas, in Tom Green County. The land within the reservoir area is generally characterized as moderately rolling terrain. Tree cover in the area is generally sparse and fairly heavy in the upper reaches along the river banks and consists primarily of pecan, willow, hackberry, mesquite, and scrub oak. The project has 4,790 acres in the four designated park areas and 5,440 surface acres at the conservation pool level available for recreation. However, the pool has reached the conservation pool level one time (1957) since it was constructed.

2. Recreation resources. - San Angelo Reservoir is readily accessible by hard surfaced roads which connect with U. S. Highways 87 and 67. The project lies in a semi-arid region characterized by a relatively moderate climate. Summer temperatures are high and freezing temperatures during the winter seldom prevail for more than a few days. All types of water-oriented recreation activities are allowed. Fishing is the most popular activity at the project. Since the project is located adjacent to the urban center of San Angelo, motels are plentiful. San Angelo is the only large population center within 100 miles of the project. About 70 percent of the visitation originates within 10 miles of the project and about 20 percent originates from beyond 100 miles. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: Whitney

District: Fort Worth

Project Location:

State or States: Texas

County or Counties: Hill, Bosque, Johnson & Somervell

River or Rivers: Brazos

Major Highway Access Routes: State 22 & 174

Project Purposes: Flood control & power

Year Impoundment Began: 1951

Pool Size:

Maximum: Acre Feet 1,999,500

Surface Acres 49,820

Shoreline Miles 240

Average Recreation: Surface Acres 16,200

Shoreline Miles 190

Number of Access Areas: 19

Recreation Facilities:

Tent and Trailer Spaces: 457

Day Use Areas (Capacity in Recreation Days) 1/ 28,400

Boat Launch Lanes: 73

Attendance (Recreation Days): 1968 3,119,900

1967 3,102,500

1966 3,377,100

1965 3,130,200

1964 4,224,700

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|-----|------|------|------|------|------|-------|
| | 8.9 | 10.2 | 14.2 | 13.7 | 11.6 | 8.8 | 67.4 |

1/ Average weekend day of peak month of use.

WHITNEY RESERVOIR

COMPETING WATER-ORIENTED RECREATION AREAS

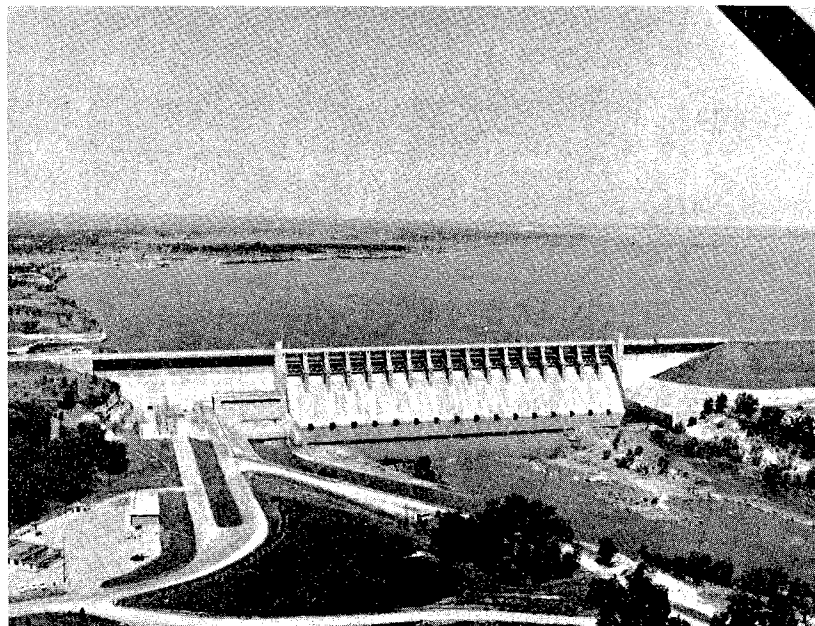
| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ | | RECREATION FACILITIES | | ESTIMATED ANNUAL ATTENDANCE |
|-------------------------|--------------------------|-------------------|--------|-----------------------|---------|--------------------------------|
| | | 0-25 | 25-50 | PUBLIC | PRIVATE | |
| Belton Reservoir | 25-50 | | 7,400 | Yes | No | 1,877,200 (1967) |
| Benbrook Reservoir | 25-50 | | 3,770 | Yes | No | 1,995,500 (1967) |
| Bosque River | 0-50 | 25 | 25 | No | Yes | 36,500 (1967) |
| Brazos River | 0-50 | 20 | 20 | No | Yes | 29,200 (1967) |
| Cedar Creek Reservoir | 25-50 | | 33,750 | Yes | Yes | 750,000 (1967) |
| Cleburne Reservoir | 25-50 | | 1,545 | Yes | Yes | 270,000 (1967) |
| Lake Waxahachie | 25-50 | | 645 | Yes | Yes | 120,000 (1967) |
| Navarro Mills Reservoir | 25-50 | | 5,070 | Yes | No | 409,200 (1967) |
| Waco Reservoir | 0-25 | 7,270 | | Yes | No | 1,204,600 (1967) |

4150

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

WHITNEY RESERVOIR

1. Reservoir description. - Whitney Dam is located on the Brazos River about 38 miles upstream from Waco, Texas. The dam is located in Hill and Bosque Counties, and the reservoir occupies portions of Johnson, Hill, Somerville, and Bosque Counties. The reservoir area is a scenic region characterized by a gently sloping valley bordered by steep, stony bluffs. The timber is restricted to hills and plateaus surrounding the reservoir. The project has 8,142 acres in the 19 designated park areas and 16,200 surface acres at the conservation pool level available for recreation.
2. Recreation resources. - Whitney Reservoir is readily accessible by hard surface roads which connect with State Highway 22 which crosses the dam and State Highway 174, which crosses the upper part of the reservoir. The project lies in a region characterized by a relatively moderate climate, having high day and moderate night temperatures in the summer and short winters which are comparatively mild. All types of water-oriented recreation activities are allowed. Fishing, swimming, picnicking, and pleasure boating are the more popular activities during the season. Subdivisions and commercial establishments are numerous around the reservoir. The metropolitan areas of Waco, Fort Worth and Dallas are all within 100 miles of the project. About 50 percent of the visitation originates within the 50 mile zone of influence and about 40 percent originates within the 50 to 100 mile zone. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: **Beaver Reservoir** District: **Little Rock**

Project Location:

State or States: **Arkansas**

County or Counties: **Benton, Carroll & Washington**

River or Rivers: **White**

Major Highway Access Routes: **U.S. 62, State 264, 187, 94, 68, 45 & 12**

Project Purposes: **Flood control, power & water supply**

Year Impoundment Began: **1964**

Pool Size:

Maximum: Acre Feet **1,952,000**

Surface Acres **31,700**

Shoreline Miles **483**

Average Recreation: Surface Acres **28,220**

Shoreline Miles **449**

Number of Access Areas: **16**

Recreation Facilities:

Tent and Trailer Spaces: **138**

Day Use Areas (Capacity in Recreation Days) ^{1/} **22,100**

Boat Launch Lanes: **125**

| | | |
|-------------------------------|------|-----------|
| Attendance (Recreation Days): | 1968 | 1,781,785 |
| | 1967 | 1,687,900 |
| | 1966 | 1,536,000 |
| | 1965 | 548,200 |
| | 1964 | 313,400 |

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|-----|------|------|------|------|------|-------|
| | 9.5 | 11.3 | 13.8 | 14.9 | 12.8 | 10.8 | 73.1 |

^{1/} Average weekend day of peak month of use.

BEAVER RESERVOIR

COMPETING WATER-ORIENTED RECREATION AREAS

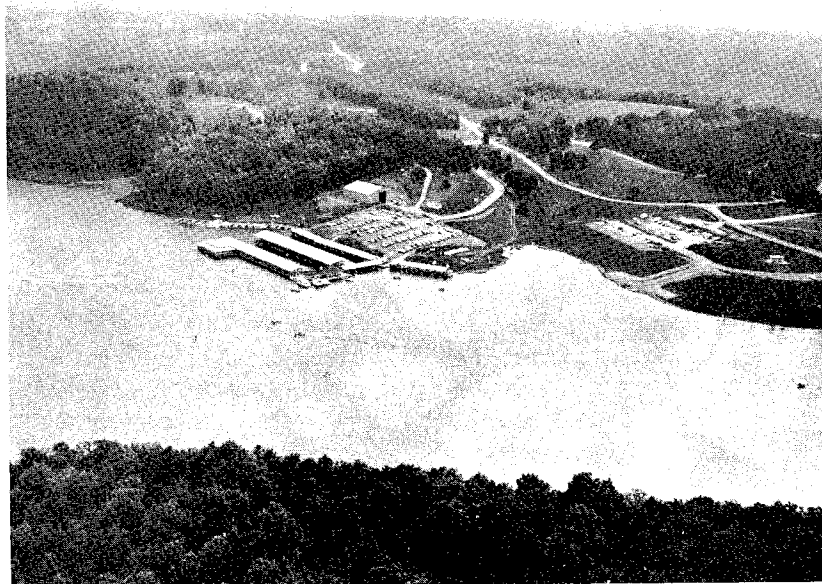
| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ | | RECREATION FACILITIES | | ESTIMATED ANNUAL ATTENDANCE |
|--------------------------|--------------------------|-------------------|--------|-----------------------|---------|--------------------------------|
| | | 0-25 | 25-50 | PUBLIC | PRIVATE | |
| Devils Den State Park | 25-50 | | 4,800 | Yes | No | 640,100 (1967) |
| Lake Taneycomo | 25-50 | | 1,700 | No | Yes | Not Available |
| Lake Wedington | 0-25 | 102 | | Yes | No | 43,700 (1967) |
| Pensacola | 25-50 | | 46,500 | No | Yes | Not Available |
| Roaring River State Park | 0-25 | 3,028 | | Yes | No | 1,290,500 (1967) |
| Table Rock Reservoir | 0-50 | 4,300 | 38,800 | Yes | No | 3,377,000 (1967) |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

BEAVER RESERVOIR

1. Reservoir description. - Beaver Reservoir is located in the Ozark Mountain region of northwestern Arkansas. The reservoir area is irregular in shape with many deep coves and arms. The shoreline is generally steep with many overhanging bluffs and ledge outcrops. The principal timber growth in the area is oak, of which there are numerous species. The project area comprises 38,046 acres of land and water. This acreage includes approximately 2,527 acres of flowage easement land.

2. Recreational resources. - The Beaver Reservoir area is encircled by a well developed network of Federal, State and County roads. Eleven public use areas containing some 2,201 acres have been developed at 100 percent Federal expense. Seven of these areas contain commercial boat docks. The climate of the reservoir area is moderate with a mean temperature of 58° F. and an average annual rainfall of about 48 inches. Water quality is excellent and all types of water-oriented recreation activities are allowed. For a number of years, the general area has been a popular vacation and retirement area. A number of modern motels are located in the vicinity of Fayetteville, Springdale, and Rogers on the west side of the reservoir and in Eureka Springs on the east side of the reservoir. Private subdivisions are continuing to be developed on lands adjoining Government ownership. Approximately 80 percent of the day use visitors come from within 50 miles of the project and about 70 percent of the campers traveled over 75 miles to the project last year. It is estimated that 1,348,900 persons reside within 125 road miles of the project. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: Bull Shoals Reservoir District: Little Rock

Project Location:

State or States: Arkansas & Missouri

County or Counties: (Ark) Boone, Marion & Baxter
(Mo) Taney & Ozark

River or Rivers: White

Major Highway Access Routes: (Ark) State 281, 202, 178, 125 & 14
(Mo) U.S. 160, State 125, 86, 76 HH, K, W & I

Project Purposes: Flood control & power

Year Impoundment Began: 1951

Pool Size:

Maximum: Acre Feet 5,408,000

Surface Acres 71,240

Shoreline Miles 1,050

Average Recreation: Surface Acres 45,440

Shoreline Miles 740

Number of Access Areas: 29

Recreation Facilities:

Tent and Trailer Spaces: 489

Day Use Areas (Capacity in Recreation Days) ^{1/} 23,000

Boat Launch Lanes: 184

| | | |
|-------------------------------|------|-----------|
| Attendance (Recreation Days): | 1968 | 2,781,347 |
| | 1967 | 1,970,553 |
| | 1966 | 1,992,600 |
| | 1965 | 2,137,800 |
| | 1964 | 2,249,601 |

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|------|------|------|------|------|------|-------|
| | 10.5 | 10.6 | 13.1 | 16.0 | 14.6 | 9.1 | 73.9 |

^{1/} Average weekend day of peak month of use.

BULL SHOALS RESERVOIR

COMPETING WATER-ORIENTED RECREATION AREAS

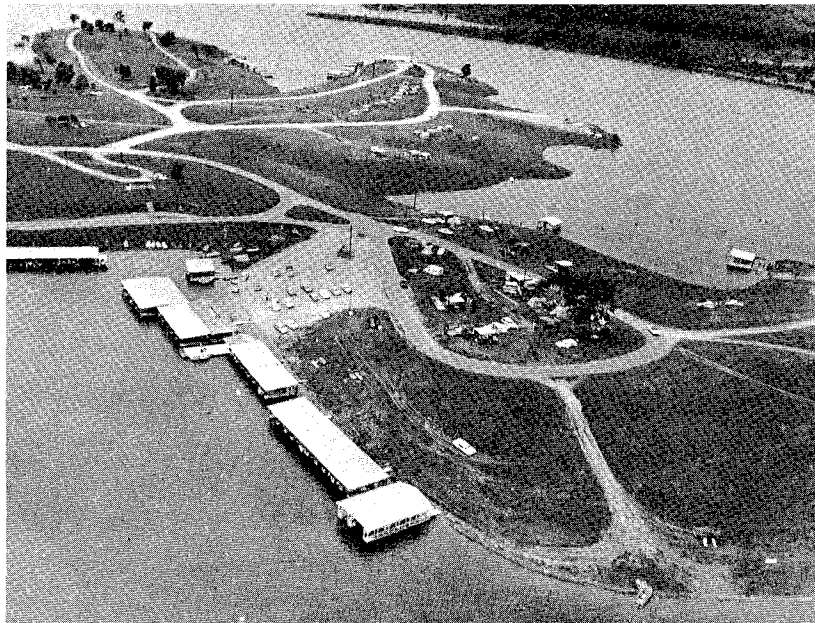
| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ | | | RECREATION FACILITIES | | ESTIMATED ANNUAL ATTENDANCE |
|--------------------------|--------------------------|-------------------|--------|--|-----------------------|---------|--------------------------------|
| | | 0-25 | 25-50 | | PUBLIC | PRIVATE | |
| Beaver Reservoir | 25-50 | | 28,220 | | Yes | No | 1,687,900 (1967) |
| Lake Taneycomo | 0-25 | 1,700 | | | No | Yes | Not Available |
| Norfolk Reservoir | 0-50 | 11,000 | 11,000 | | Yes | No | 1,531,500 (1967) |
| Roaring River State Park | 25-50 | | 3,028 | | Yes | No | 1,290,500 (1967) |
| Table Rock Reservoir | 0-50 | 23,100 | 20,000 | | Yes | No | 3,377,000 (1967) |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

BULL SHOALS RESERVOIR

1. Reservoir description. - Bull Shoals Reservoir is located in the center of the Ozark Mountains. The project area is rugged and generally wooded, primarily with numerous species of oak. The shoreline of the reservoir is very irregular with numerous coves extending outward from the main channel of the White River. The project area is comprised of some 101,082 acres of land and water. This acreage includes approximately 1,106 acres of flowage easement land.

2. Recreational resources. - Bull Shoals Reservoir is located in a nationally known resort and vacation area. The project is encircled by a network of good Federal and State highways. Numerous farm-to-market roads interconnect these highways to afford access throughout the reservoir area. Seventeen public use areas containing some 3,514 acres are being developed and maintained at 100 percent Federal expense. Three other public use areas containing 1,447 acres are being developed and maintained at 100 percent State or local interest expense. There are 13 commercial boat docks on Bull Shoals Reservoir. The climate of the reservoir area is moderate with a mean temperature of 59° F. and an average annual rainfall of about 45 inches. The water quality of the reservoir is excellent, and all types of water-oriented recreation activities are allowed. A number of motels and resorts are located on private lands adjoining Government-owned lands. Overnight accommodations are available in four of the public use areas maintained by the Corps. Approximately 80 percent of the day use visitors come from within 100 miles of the project and about 70 percent of the campers traveled over 125 miles to the project last year. It is estimated that 1,382,000 persons reside within 125 road miles of the project. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: **Greers Ferry Reservoir District: Little Rock**

Project Location:

State or States: **Arkansas**

County or Counties: **Cleburne & Van Buren**

River or Rivers: **Little Red**

Major Highway Access Routes: **U.S. 65, State 337, 330, 110, 92, 25 & 16**

Project Purposes: **Flood control & power**

Year Impoundment Began: **1961**

Pool Size:

Maximum: Acre Feet **2,844,000**

Surface Acres **40,480**

Shoreline Miles **343**

Average Recreation: Surface Acres **31,460**

Shoreline Miles **276**

Number of Access Areas: **15**

Recreation Facilities:

Tent and Trailer Spaces: **314**

Day Use Areas (Capacity in Recreation Days)^{1/} **32,500**

Boat Launch Lanes: **56**

| | | |
|-------------------------------|------|-----------|
| Attendance (Recreation Days): | 1968 | 2,006,564 |
| | 1967 | 1,631,000 |
| | 1966 | 1,431,000 |
| | 1965 | 1,428,400 |
| | 1964 | 1,400,156 |

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|-----|------|------|------|------|------|-------|
| | 9.3 | 12.5 | 17.5 | 20.4 | 15.8 | 7.8 | 83.3 |

^{1/} Average weekend day of peak month of use.

GREERS FERRY RESERVOIR

COMPETING WATER-ORIENTED RECREATION AREAS

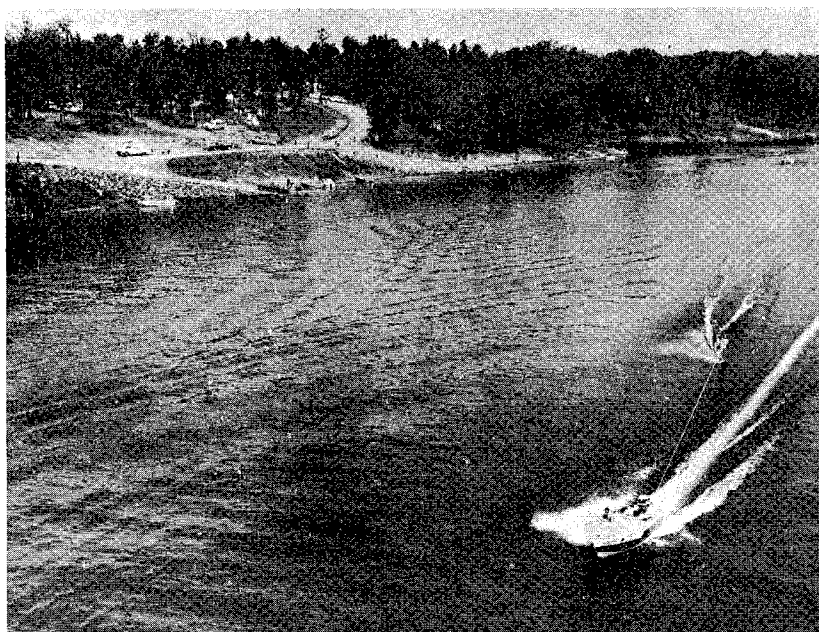
| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ | | RECREATION FACILITIES | | ESTIMATED ANNUAL ATTENDANCE |
|--------------------------|--------------------------|-------------------|-------|-----------------------|---------|--------------------------------|
| | | 0-25 | 25-50 | PUBLIC | PRIVATE | |
| Buffalo River State Park | 25-50 | | 1,600 | Yes | No | 770,100 (1967) |
| Lake Conway | 25-50 | | 6,700 | Yes | No | Not Available |
| Petit Jean State Park | 25-50 | | 3,980 | Yes | No | 816,100 (1967) |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

GREERS FERRY RESERVOIR

1. Reservoir description. - Greers Ferry Reservoir is located in the foothills of the scenic Ozark Mountains. The reservoir is irregular in shape with numerous arms and coves. Steep bluff formations on both sides of the central portion of the reservoir confine the water to a channel that divides the reservoir into two large lakes. The area is generally wooded and rugged with interesting geologic formations overlooking the reservoir. Principal tree growths consist of a number of species of oak and pine. The project area comprises 45,744 acres of land and water. This acreage includes approximately 4,847 acres of flowage easement land.

2. Recreational resources. - Greers Ferry Reservoir is located in a popular vacation and retirement area. This area has a mild climate, scenic terrain and a long season for outdoor recreation. The average mean temperature is about 60° F. and the average annual rainfall is about 50 inches. The reservoir area is encircled by a well developed network of Federal, State and county roads. Fourteen public use areas containing some 1,913 acres have been developed at 100 percent Federal expense. There are nine commercial boat docks to serve the visiting public. A number of modern motels have been constructed near the project. Private subdivisions are continuing to be developed on lands adjoining Government ownership. A Federal fish hatchery is located on project lands downstream from the dam. In 1967, this hatchery produced approximately 60,000 pounds of rainbow trout; 25,000 pounds of which were stocked in the lake. Approximately 80 percent of the day use visitors come from within 100 miles of the project and about 80 percent of the campers traveled over 50 miles to the project last year. An estimated 1,112,100 persons reside within 125 road miles of the project. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: **Norfolk Reservoir** District: **Little Rock**

Project Location:

State or States: **Arkansas & Missouri**

County or Counties: **(Ark) Baxter & Fulton**
(Mo) Ozark

River or Rivers: **North Fork**

Major Highway Access Routes: **(Ark) U.S. 62, State 201, 177, 101 & 5**
(Mo) U.S. 160, State 101 & "O"

Project Purposes: **Flood control & power**

Year Impoundment Began: **1943**

Pool Size:

Maximum: Acre Feet **1,983,000**

Surface Acres **30,700**

Shoreline Miles **510**

Average Recreation: Surface Acres **21,990**

Shoreline Miles **380**

Number of Access Areas: **25**

Recreation Facilities:

Tent and Trailer Spaces: **247**

Day Use Areas (Capacity in Recreation Days) ^{1/} **16,200**

Boat Launch Lanes: **72**

| | | |
|-------------------------------|------|-----------|
| Attendance (Recreation Days): | 1968 | 1,767,096 |
| | 1967 | 1,531,500 |
| | 1966 | 1,533,500 |
| | 1965 | 1,504,200 |
| | 1964 | 1,486,525 |

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|-----|-----|------|------|------|------|-------|
| | 7.7 | 8.9 | 16.3 | 19.2 | 14.8 | 9.3 | 76.2 |

^{1/} Average weekend day of peak month of use.

NORFOLK RESERVOIR

COMPETING WATER-ORIENTED RECREATION AREAS

| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ | | RECREATION FACILITIES | | ESTIMATED ANNUAL ATTENDANCE |
|--------------------------|--------------------------|-------------------|--------|-----------------------|---------|--------------------------------|
| | | 0-25 | 25-50 | PUBLIC | PRIVATE | |
| Buffalo River State Park | 25-50 | | 1,600 | Yes | No | 770,100 (1967) |
| Bull Shoals Reservoir | 0-50 | 18,000 | 27,440 | Yes | No | 1,974,000 (1967) |
| Lake Taneycomo | 25-50 | | 1,700 | No | Yes | Not Available |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

NORFORK RESERVOIR

1. Reservoir description. - Norfork Reservoir is located on the North Fork River in Baxter and Fulton Counties, Arkansas, and Ozark County, Missouri. The project area is rugged and generally wooded, primarily with numerous species of oak. There are numerous steep, rocky slopes and bluffs along the shoreline of the reservoir. The project area is comprised of some 54,113 acres of land and water.
2. Recreational resources. - Norfork Reservoir is located in an established resort and vacation area. The project is encircled by a network of good Federal and State highways with numerous farm-to-market roads interconnecting these highways to afford access throughout the reservoir area. In addition, two free ferries operated by the State connect the severed portions of U. S. Highway 62 and Arkansas Highway 101. An estimated 249,600 persons rode these ferries for recreational pursuits during 1967. Twenty-one public use areas containing some 4,404 acres have been developed and are being maintained at 100 percent Federal expense. There are 11 commercial boat docks operating on the reservoir. A Federal fish hatchery is located on project lands downstream from the dam. Water quality is excellent and all types of water-oriented recreation activities are allowed. The climate of the reservoir area is moderate with a mean temperature of 56° F. and an average annual rainfall of about 45 inches. A number of motels and resorts are located on private lands adjoining Government-owned lands. Approximately 80 percent of the day use visitors come from within 75 miles of the project and about 80 percent of the campers traveled over 100 miles to the project last year. It is estimated that 898,600 persons reside within 125 road miles of the project. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: Table Rock Reservoir District: Little Rock

Project Location:

State or States: Missouri & Arkansas

County or Counties: (Mo) Stone, Barry & Taney
(Ark) Carroll & Boone

River or Rivers: White

Major Highway Access Routes: (Mo) U.S. 65 & 62, State 265, 165, 86, 76,
39, 13, H & M

Project Purposes: Flood control & power

Year Impoundment Began: 1958

Pool Size:

Maximum: Acre Feet 3,462,000

Surface Acres 52,250

Shoreline Miles 857

Average Recreation: Surface Acres 43,070

Shoreline Miles 745

Number of Access Areas: 22

Recreation Facilities:

Tent and Trailer Spaces: 869

Day Use Areas (Capacity in Recreation Days)^{1/} 72,700

Boat Launch Lanes: 322

| | | |
|-------------------------------|------|-----------|
| Attendance (Recreation Days): | 1968 | 3,931,751 |
| | 1967 | 3,377,000 |
| | 1966 | 3,217,000 |
| | 1965 | 3,331,600 |
| | 1964 | 2,872,283 |

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|-----|-----|------|------|------|------|-------|
| | 6.9 | 9.2 | 16.5 | 18.6 | 18.1 | 9.5 | 78.8 |

^{1/} Average weekend day of peak month of use.

TABLE ROCK RESERVOIR

COMPETING WATER-ORIENTED RECREATION AREAS

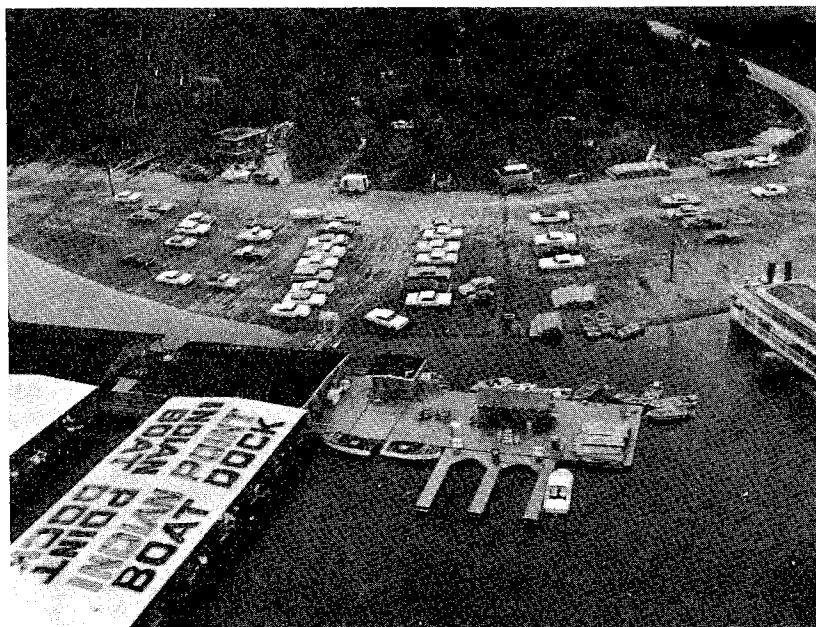
| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ | | RECREATION FACILITIES | | ESTIMATED ANNUAL ATTENDANCE |
|--------------------------|--------------------------|-------------------|--------|-----------------------|---------|--------------------------------|
| | | 0-25 | 25-50 | PUBLIC | PRIVATE | |
| Beaver Reservoir | 0-50 | 17,000 | 11,220 | Yes | No | 1,687,900 (1967) |
| Buffalo River State Park | 25-50 | | 1,600 | Yes | No | 770,100 (1967) |
| Bull Shoals Reservoir | 0-50 | 22,700 | 22,740 | Yes | No | 1,974,000 (1967) |
| Lake Taneycomo | 0-25 | 1,700 | | No | Yes | Not Available |
| Roaring River State Park | 0-25 | | 3,028 | Yes | No | 1,290,500 (1967) |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

TABLE ROCK RESERVOIR

1. Reservoir description. - Table Rock Reservoir is located in the scenic Ozark Mountain region of southwest Missouri and northwest Arkansas. The reservoir area is characterized by narrow ridges between deeply cut valleys that are well wooded with deciduous trees and shrubs interspersed with pine and cedar. The project area is comprised of 61,213 acres of land and water. This acreage includes some 3,459 acres of flowage easement land.

2. Recreational resources. - The Table Rock Reservoir area is encircled by a well developed network of Federal, State and County roads. The Corps is continuing development and maintenance of 19 public use areas containing some 1,513 acres. Four other areas adjacent to the reservoir are being developed; two by the U. S. Forest Service and two by State and local governments. There are 11 commercial boat docks in operation on the reservoir. The Missouri Conservation Commission has developed and is managing a fish hatchery on project lands below the dam. A continuous stocking program of rainbow trout is carried out in the water immediately downstream from the dam. The climate of the reservoir area is moderate with a mean temperature of 59° F. and an average annual rainfall of about 45 inches. Water quality is excellent and all types of water-oriented recreation activities are allowed. For a number of years, the general area has been a popular vacation and retirement area. Resort, motel, and business developments in the area are mostly oriented toward the tourist trade. Private subdivisions are continuing to be developed on lands adjoining Government ownership. Approximately 65 percent of the day use visitors came from within 250 miles of the project and about 47 percent of the campers traveled over 250 miles to the project last year. An estimated 9,199,600 persons reside within 250 road miles of the project. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: Center Hill District: Nashville

Project Location:

State or States: Tennessee

County or Counties: De Kalb, Warren, White & Putnam

River or Rivers: Caney Fork

Major Highway Access Routes: I-40, U.S. 70, State 56

Project Purposes: Flood control & power

Year Impoundment Began: 1948

Pool Size:

Maximum: Acre Feet 2,092,000

Surface Acres 23,060

Shoreline Miles 415

Average Recreation: Surface Acres 18,220

Shoreline Miles 370

Number of Access Areas: 46

Recreation Facilities:

Tent and Trailer Spaces: 159

Day Use Areas (Capacity in Recreation Days) 1/ 54,000

Boat Launch Lanes: 47

| | | |
|-------------------------------|------|-----------|
| Attendance (Recreation Days): | 1968 | 2,287,300 |
| | 1967 | 1,988,000 |
| | 1966 | 2,203,500 |
| | 1965 | 2,010,000 |
| | 1964 | 1,903,150 |

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|-----|------|------|------|------|------|-------|
| | 8.2 | 11.7 | 17.0 | 18.0 | 13.8 | 7.3 | 76.0 |

1/ Average weekend day of peak month of use.

CENTER HILL RESERVOIR

COMPETING WATER-ORIENTED RECREATION AREAS

| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ | | RECREATION FACILITIES | | ESTIMATED ANNUAL ATTENDANCE |
|-----------------|--------------------------|-------------------|-------|-----------------------|---------|--------------------------------|
| | | 0-25 | 25-50 | PUBLIC | PRIVATE | |
| Dale Hollow | 25-50 | | 8 | Yes | Yes | 1,323,100 (1967) |
| J. Percy Priest | 25-50 | | 5 | Yes | No | Not Available |
| Old Hickory | 25-50 | 32 | 52 | Yes | Yes | 4,977,000 (1967) |
| Woods Reservoir | 25-50 | | 8 | Yes | Yes | Not Available |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

CENTER HILL RESERVOIR

1. Reservoir description. - The project is located at Mile 26.6 on the Caney Fork River. The general topography of the reservoir shoreline is predominantly steep and rugged bluffs. Normally, the water level fluctuation is about seven feet during the recreation season, with the greatest storage occurring in April. The project area comprises 39,052 acres of land and water area of which 20,332 acres of land is available to recreation.
2. Recreational resources. - Access to the reservoir is principally by one State and two Federal highways. In addition, a limited access highway runs only a few miles from the lower end of the project. The climate of the project area is generally moderate with rainfall distributed throughout the year. The nearest large urban area is Nashville, Tennessee, which lies 55 miles from the project and has a population of approximately 300,000 people. About 90% of the visitation to the project originates from less than 100 miles. All types of water related recreational opportunities are allowed on the project. There are many homes and numerous cabins and motel units around the perimeter of the project. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: Cheatham

District: Nashville

Project Location:

State or States: Tennessee

County or Counties: Cheatham & Dickson

River or Rivers: Cumberland

Major Highway Access Routes: U.S. 70 & 41A, State 49, 12 & 47

Project Purposes: Navigation & power

Year Impoundment Began: 1954

Pool Size:

Maximum: Acre Feet 104,000

Surface Acres 7,450

Shoreline Miles 185

Average Recreation: Surface Acres 7,450

Shoreline Miles 185

Number of Access Areas: 29

Recreation Facilities:

Tent and Trailer Spaces: 25

Day Use Areas (Capacity in Recreation Days) ^{1/} 25,500

Boat Launch Lanes: 36

| | | |
|-------------------------------|------|-----------|
| Attendance (Recreation Days): | 1968 | 1,120,000 |
| | 1967 | 1,107,800 |
| | 1966 | 1,053,300 |
| | 1965 | 1,004,500 |
| | 1964 | 997,100 |

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|------|------|------|------|------|------|-------|
| | 10.5 | 11.5 | 13.1 | 12.9 | 10.9 | 7.8 | 66.7 |

^{1/} Average weekend day of peak month of use.

CHEATHAM RESERVOIR

COMPETING WATER-ORIENTED RECREATION AREAS

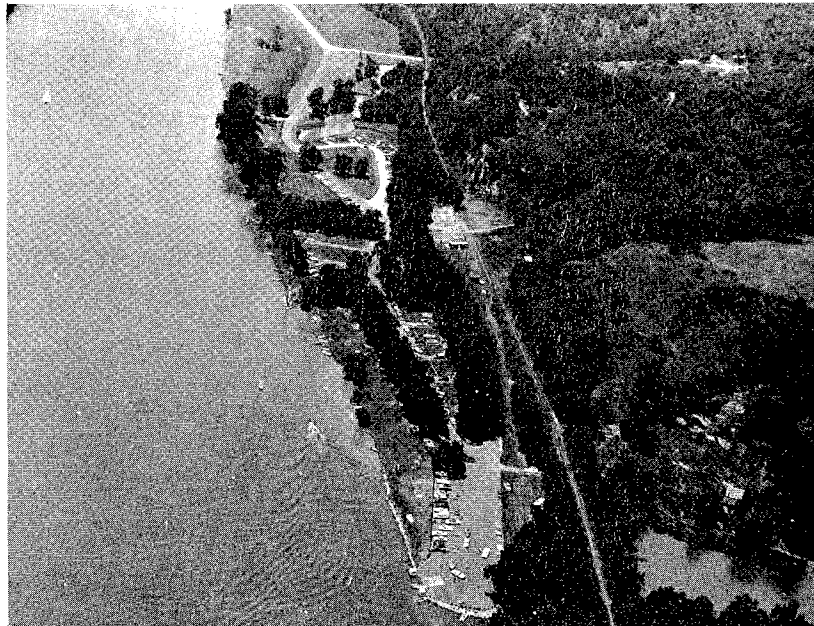
| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ | | | RECREATION FACILITIES | | ESTIMATED ANNUAL ATTENDANCE |
|-----------------|--------------------------|-------------------|-------|-------|-----------------------|---------|--------------------------------|
| | | 0-25 | 25-50 | 50-75 | PUBLIC | PRIVATE | |
| J. Percy Priest | 0-25 | 24 | 11 | | Yes | No | Not Available |
| Kentucky Lake | 25-50 | | 75 | | Yes | Yes | Not Available |
| Lake Barkley | 0-25 | 45 | 73 | | Yes | Yes | 1,629,800 (1967) |
| Marrowbone Lake | 0-25 | 60 | | | Yes | Yes | 11,750 (1967) |
| Old Hickory | 0-25 | 20 | 81 | | Yes | Yes | 4,977,000 (1967) |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

CHEATHAM RESERVOIR

1. Reservoir description. - The project is located at Mile 148.7 of the Cumberland River which is 42 river miles downstream from Nashville, Tennessee. The topography of the reservoir area is generally flat to rolling. Normally, the fluctuation of the water level during the recreation season is about three feet. The project area comprises 10,797 acres of which 2,799 acres of land are available for recreation purposes.

2. Recreational resources. - Access to the reservoir is principally by three State and two Federal highways. The closest urban population area is Nashville, Tennessee, which is some 20 road miles from the project. The climate of the project area is generally moderate with rainfall distributed throughout the year. Almost 100% of the visitors to the project originate from within 100 miles of the project. Weekend cottages and subdivisions for primary dwellings are expanding rapidly. All types of water related activities are permitted on the project. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: Dale Hollow

District: Nashville

Project Location:

State or States: Tennessee & Kentucky

County or Counties: (Tenn) Clay, Pickett, Overton & Fentress
(Ky) Clinton & Cumberland

River or Rivers: Obey

Major Highway Access Routes: (Ky) State 61
(Tenn) State 53, 52 & 42, U.S. 127

Project Purposes: Flood control & power

Year Impoundment Began: 1943

Pool Size:

Maximum: Acre Feet 1,706,000

Surface Acres 30,990

Shoreline Miles 620

Average Recreation: Surface Acres 27,700

Shoreline Miles 590

Number of Access Areas: 48

Recreation Facilities:

Tent and Trailer Spaces: 122

Day Use Areas (Capacity in Recreation Days) 1/ 84,000

Boat Launch Lanes: 105

| | | |
|-------------------------------|------|-----------|
| Attendance (Recreation Days): | 1968 | 1,543,100 |
| | 1967 | 1,323,100 |
| | 1966 | 1,348,100 |
| | 1965 | 1,332,700 |
| | 1964 | 1,328,900 |

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|-----|------|------|------|------|------|-------|
| | 8.0 | 11.6 | 16.5 | 22.3 | 13.7 | 9.4 | 81.5 |

1/ Average weekend day of peak month of use.

DALE HOLLOW RESERVOIR

COMPETING WATER-ORIENTED RECREATION AREAS

| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ | | RECREATION FACILITIES | | ESTIMATED ANNUAL ATTENDANCE |
|-----------------|--------------------------|-------------------|--------|-----------------------|---------|--------------------------------|
| | | 0-25 | 25-50 | PUBLIC | PRIVATE | |
| Barren River | 25-50 | | 10,000 | Yes | Yes | Not Available |
| Center Hill | 25-50 | | 23 | Yes | Yes | 1,988,000 (1967) |
| Lake Cumberland | 0-25 | 7 | 43 | Yes | Yes | 4,437,100 (1967) |
| Old Hickory | 25-50 | | 10 | Yes | Yes | 4,977,000 (1967) |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

DALE HOLLOW RESERVOIR

1. Reservoir description. - The project is located in Clay County, Tennessee, on the Obey River, 7.3 miles above its confluence with the Cumberland River at Celina, Tennessee. The reservoir lies in Clay, Fentress, Pickett and Overton County, Tennessee, and Cumberland and Clinton Counties, Kentucky. The surrounding area is characterized by very steep ridges and valley slopes covered in timberland and brush. Normally, the water level fluctuation is about 9 feet during the recreation season, with the greatest storage occurring in April. The project area comprises 52,482 acres of land and water area of which 27,700 acres of land is available to recreation.

2. Recreational resources. - Access to the reservoir is provided by paved roads around the entire circumference. Four State and one Federal highway provide the major access routes. The climate of the reservoir is characterized by warm summers and moderately cold winters. All types of water-oriented recreational opportunities are allowed. About 50% of the visitation originates from over 100 miles from the reservoir. There are some motel units throughout the area and many families have camping or weekend type cottages located around the reservoir shoreline. A State park is adjacent to the reservoir property boundary on the lower end. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: Lake Cumberland District: Nashville

Project Location:

State or States: Kentucky

County or Counties: Wayne, Russell, Pulaski, Clinton, McCreary,
Laurel & Whitley

River or Rivers: Cumberland

Major Highway Access Routes: U.S. 127 & 27, State 80 & 90

Project Purposes: Flood control & power

Year Impoundment Began: 1950

Pool Size:

Maximum: Acre Feet 6,089,000

Surface Acres 63,530

Shoreline Miles Not Available

Average Recreation: Surface Acres 50,250

Shoreline Miles 1,085

Number of Access Areas: 119

Recreation Facilities:

Tent and Trailer Spaces: 626

Day Use Areas (Capacity in Recreation Days) 1/ 130,000

Boat Launch Lanes: 84

| | | |
|-------------------------------|------|-----------|
| Attendance (Recreation Days): | 1968 | 4,930,700 |
| | 1967 | 4,437,100 |
| | 1966 | 4,684,400 |
| | 1965 | 3,840,100 |
| | 1964 | 3,676,400 |

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|-----|------|------|------|------|------|-------|
| | 7.9 | 12.4 | 16.1 | 21.9 | 15.4 | 9.2 | 82.9 |

1/ Average weekend day of peak month of use.

LAKE CUMBERLAND

COMPETING WATER-ORIENTED RECREATION AREAS

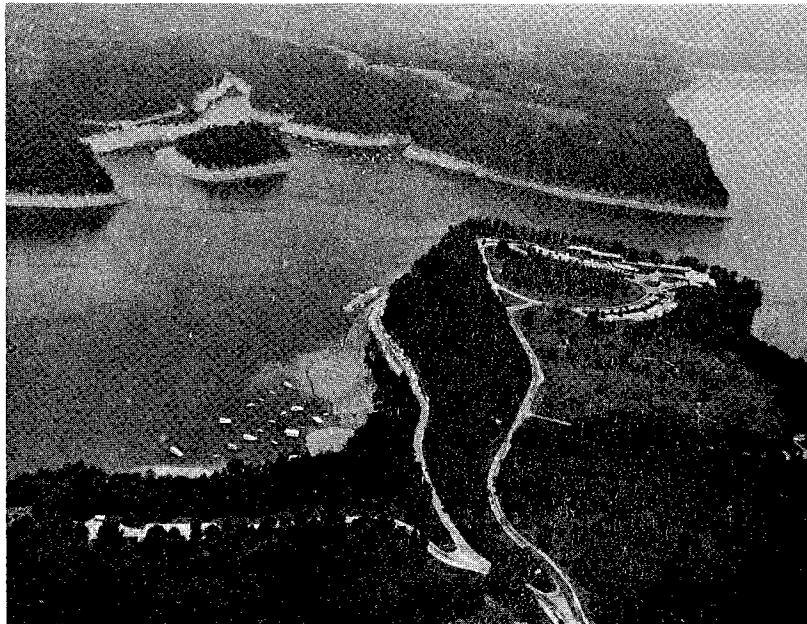
| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ | | | RECREATION FACILITIES | | ESTIMATED ANNUAL ATTENDANCE |
|-----------------|--------------------------|-------------------|-------|----|-----------------------|---------|--------------------------------|
| | | 0-25 | 25-50 | 49 | PUBLIC | PRIVATE | |
| Dale Hollow | 0-25 | | 12 | 49 | Yes | Yes | 1,323,100 (1967) |
| Nerrington Lake | 25-50 | | 8 | | No | Yes | Not Available |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

LAKE CUMBERLAND

1. Reservoir description. - The project is located in Russell, Clinton, Wayne, Pulaski, McCreary, Laurel and Whitley Counties, Kentucky. The dam is located at Mile 460.9 on the Cumberland River. The project lies in two distinct topographic and geologic divisions; the upper part lies in the Cumberland Plateau and the lower part lies in the Mississippi Plateau. The topography of the reservoir shoreline is generally rugged. Normally, the fluctuation of the water level is around 20 feet during the recreation season, with the greatest storage occurring in April. The project area comprises 101,384 acres of land and water area of which 45,358 acres of land is available to recreation.

2. Recreational resources. - Access to the reservoir is provided by paved roads around its entire shoreline. Two State and two Federal highways provide the major access to the reservoir. The climate of the reservoir region is generally moderate with rainfall distributed throughout the year. The nearest major urban area is Lexington, Kentucky, which lies about 120 miles from the project. The 1960 population of Lexington was approximately 63,000 people. About 60% of the visitation to the reservoir originates from over 100 miles. All types of water related recreational opportunities are allowed on the project. There are many homes and week-end cottages around the reservoir as well as motels to serve the visiting public. Two State parks are located adjacent to the reservoir. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: Old Hickory

District: Nashville

Project Location:

State or States: Tennessee

County or Counties: Sumner, Davidson, Wilson, Trousdale & Smith

River or Rivers: Cumberland

Major Highway Access Routes: I-40, U.S. 31E, State 24, 45 & 109

Project Purposes: Power & navigation

Year Impoundment Began: 1956

Pool Size:

Maximum: Acre Feet 545,000

Surface Acres 22,500

Shoreline Miles 440

Average Recreation: Surface Acres 22,500

Shoreline Miles 370

Number of Access Areas: 104

Recreation Facilities:

Tent and Trailer Spaces: 83

Day Use Areas (Capacity in Recreation Days) ^{1/} 81,750

Boat Launch Lanes: 100

| | | |
|-------------------------------|------|-----------|
| Attendance (Recreation Days): | 1968 | 5,607,700 |
| | 1967 | 4,964,700 |
| | 1966 | 5,273,100 |
| | 1965 | 4,902,500 |
| | 1964 | 3,900,700 |

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|-----|------|------|------|------|------|-------|
| | 7.4 | 13.8 | 19.2 | 18.8 | 14.6 | 8.5 | 82.3 |

^{1/} Average weekend day of peak month of use.

OLD HICKORY RESERVOIR

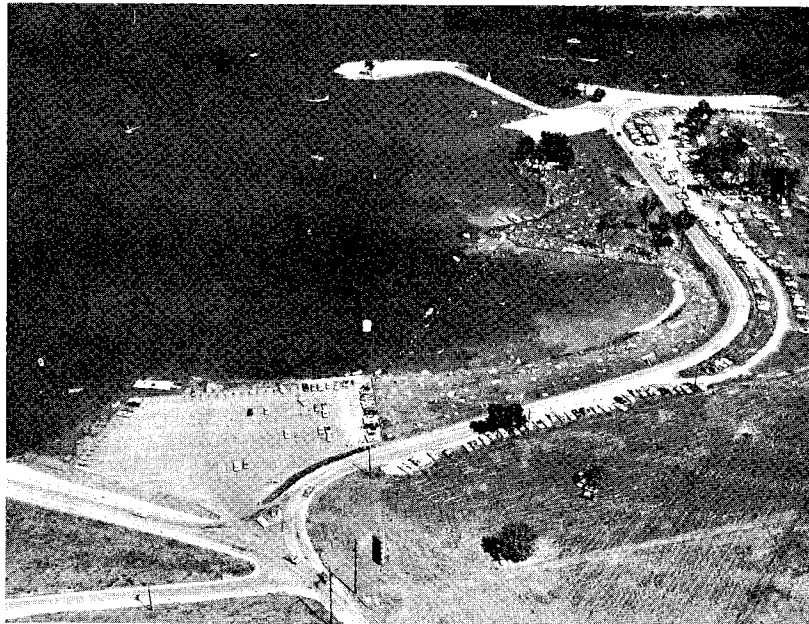
COMPETING WATER-ORIENTED RECREATION AREAS

| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ | | RECREATION FACILITIES | | ESTIMATED ANNUAL ATTENDANCE |
|-----------------|--------------------------|-------------------|--------|-----------------------|---------|--------------------------------|
| | | 0-25 | 25-50 | PUBLIC | PRIVATE | |
| Barren River | 25-50 | | 10,000 | Yes | Yes | Not Available |
| Center Hill | 0-25 | 21 | 43 | Yes | Yes | 1,988,000 (1967) |
| Cheatham | 0-25 | 68 | | Yes | Yes | 1,107,800 (1967) |
| Dale Hollow | 25-50 | | 12 | Yes | Yes | 1,323,100 (1967) |
| J. Percy Priest | 0-25 | 35 | | Yes | Yes | Not Available |
| Lake Barkley | 25-50 | | 21 | Yes | Yes | 1,629,800 (1967) |
| Marrowbone Lake | 0-25 | 60 | | Yes | Yes | 11,750 (1967) |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

OLD HICKORY RESERVOIR

1. Reservoir description. - The project is located at Mile 216.2 of the Cumberland River which is approximately 15 miles from Nashville, Tennessee. The topography of the reservoir area is generally flat to rolling. Normally, the water level fluctuation during the recreation season is about two feet. The project area comprises 29,078 acres of land and water area of which 10,199 acres of land is available to recreation.
2. Recreational resources. - Access to the reservoir is principally by one State and one Federal highway which run parallel to the project and two State highways which cross the reservoir. In addition, a limited access interstate highway runs parallel to the project within 10 miles of the reservoir. The closest major urban area is Nashville, Tennessee, which has a population of approximately 300,000 people. The climate of the project area is generally moderate with rainfall distributed over the year. About 98% of the visitors to the project come from within 100 miles of the project. The lower end of the project shoreline is heavily urbanized with subdivisions. The small amount of publically owned land available along the shoreline is the limiting factor in further recreation development of the project. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: Cottage Grove District: Portland

Project Location:

State or States: Oregon

County or Counties: Lane

River or Rivers: Coast Fork Willamette

Major Highway Access Routes: I-5

Project Purposes: Flood control, navigation & irrigation

Year Impoundment Began: 1942

Pool Size:

Maximum: Acre Feet 33,000

Surface Acres 1,251

Shoreline Miles 9

Average Recreation: Surface Acres 1,161

Shoreline Miles 9

Number of Access Areas: 4

Recreation Facilities:

Tent and Trailer Spaces: 30

Day Use Areas (Capacity in Recreation Days) 1/ 9,000

Boat Launch Lanes: 4

| | | |
|-------------------------------|------|---------|
| Attendance (Recreation Days): | 1968 | 181,223 |
| | 1967 | 235,100 |
| | 1966 | 158,854 |
| | 1965 | 197,700 |
| | 1964 | 197,111 |

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|-----|------|------|------|------|------|-------|
| | 5.8 | 11.8 | 21.9 | 31.6 | 14.5 | 5.0 | 90.6 |

1/ Average weekend day of peak month of use.

COTTAGE GROVE RESERVOIR

COMPETING WATER-ORIENTED RECREATION AREAS

| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ | | RECREATION FACILITIES | | ESTIMATED ANNUAL ATTENDANCE |
|------------------|--------------------------|-------------------|-------|-----------------------|---------|--------------------------------|
| | | 0-25 | 25-50 | PUBLIC | PRIVATE | |
| Dorena Reservoir | 0-25 | 1,900 | | Yes | No | 192,000 (1967) |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

COTTAGE GROVE RESERVOIR

1. Reservoir description. - The project is located in Lane County, Oregon, on the Coast Fork of the Willamette River 6 miles south of the town of Cottage Grove at about 800 feet elevation in the foothills of the Calapooya Mountains. Some farmland exists adjacent to the project, but the surrounding hills are mostly timbered with commercial Douglas fir, cedar, and hemlock. The shoreline is variable in topography from very flat to quite steep. The pool is drawn down each summer for conservation purposes starting early in August. By mid-September, the pool is 80 percent evacuated. Total project area is 1,570 acres with over 1,100 acres of water at full pool.

2. Recreational resources. - The entire perimeter of the reservoir is served by paved roads linking with Interstate Highway No. 5 four miles from the dam. The climate is characterized by mild, wet winters and warm, relatively dry summers with few seasonal extremes. A limited sport fishery is present for warm-water species of fish as well as trout. General recreation activities include picnicking, camping, boating, waterskiing, swimming, and sightseeing. Use of part of the westerly shoreline is limited because a road closely skirts the reservoir. Lodging accommodations are 6 miles or more from the project near the town of Cottage Grove and along Interstate Highway No. 5. The town of Cottage Grove and the Eugene-Springfield metropolitan area are the major population centers which utilize the project recreation resources. About 75 percent of recreation use originates within 25 miles of the project. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: Detroit

District: Portland

Project Location:

State or States: Oregon

County or Counties: Marion & Linn

River or Rivers: North Santiam

Major Highway Access Routes: State 22

Project Purposes: Navigation, irrigation, power & flood control

Year Impoundment Began: 1952

Pool Size:

Maximum: Acre Feet 461,450

Surface Acres 3,721

Shoreline Miles 38

Average Recreation: Surface Acres 3,708

Shoreline Miles 36.5

Number of Access Areas: 11

Recreation Facilities:

Tent and Trailer Spaces: 394

Day Use Areas (Capacity in Recreation Days) 1/ 8,000

Boat Launch Lanes: 7

| | | |
|-------------------------------|------|---------|
| Attendance (Recreation Days): | 1968 | 597,520 |
| | 1967 | 572,452 |
| | 1966 | 561,295 |
| | 1965 | 348,000 |
| | 1964 | 359,093 |

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|-----|------|------|------|------|------|-------|
| | 7.9 | 10.9 | 18.0 | 22.1 | 20.3 | 10.5 | 89.7 |

1/ Average weekend day of peak month of use.

DETROIT RESERVOIR

COMPETING WATER-ORIENTED RECREATION AREAS

| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ | | RECREATION FACILITIES | | ESTIMATED ANNUAL ATTENDANCE |
|-----------------------|--------------------------|-------------------|-------|-----------------------|---------|--------------------------------|
| | | 0-25 | 25-50 | PUBLIC | PRIVATE | |
| Green Peter Reservoir | 25-50 | | 3,720 | Yes | No | 100,000 (1967) |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

DETROIT RESERVOIR

1. Reservoir description. - The project is on the North Santiam River in Linn and Marion Counties about 45 miles east of Salem at about 1,600 feet elevation on the westerly slope of the Cascade Range and is mostly within the Willamette National Forest. Rugged timber producing slopes surround the project. Shoreline slopes are moderate to very steep, limiting development. Most years, the pool remains adequately full throughout the summer. The total project area is about 7,200 acres with 3,720 acres of water at full pool.

2. Recreational resources. - State Highway No. 22, a major east-west route, traverses the right shoreline. Graveled forest access roads serve most of the left shoreline. The climate is characterized by mild, wet winters and warm, relatively dry summers with few seasonal extremes. Trout and kokanee (land-locked salmon) provide an excellent fishery. General recreation activities include picnicking, camping, boating, waterskiing, swimming, and sightseeing. Limited areas are available for public use development because of steep shoreline topography. Lodging and restaurant accommodations are available in the town of Detroit six miles from the reservoir. The project receives significant numbers of recreationists originating from local, intermediate, and out-of-state areas. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: Dorena

District: Portland

Project Location:

State or States: Oregon

County or Counties: Lane

River or Rivers: Row

Major Highway Access Routes: I-5

Project Purposes: Flood control, navigation & irrigation

Year Impoundment Began: 1949

Pool Size:

Maximum: Acre Feet 77,500

Surface Acres 1,900

Shoreline Miles 12

Average Recreation: Surface Acres 1,750

Shoreline Miles 12

Number of Access Areas: 5

Recreation Facilities:

Tent and Trailer Spaces: 53

Day Use Areas (Capacity in Recreation Days) 1/ 2,000

Boat Launch Lanes: 2

| | | |
|-------------------------------|------|---------|
| Attendance (Recreation Days): | 1968 | 192,017 |
| | 1967 | 192,100 |
| | 1966 | 181,086 |
| | 1965 | 201,900 |
| | 1964 | 195,383 |

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|-----|------|------|------|------|------|-------|
| | 9.0 | 12.2 | 15.2 | 19.9 | 12.6 | 7.1 | 76.0 |

1/ Average weekend day of peak month of use.

DORENA RESERVOIR

COMPETING WATER-ORIENTED RECREATION AREAS

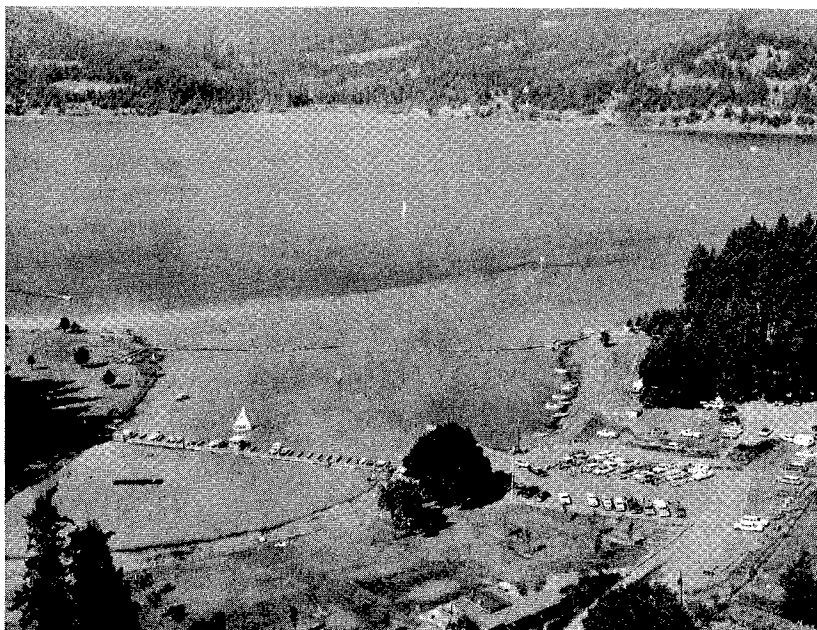
| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ | | RECREATION FACILITIES | | ESTIMATED ANNUAL ATTENDANCE |
|-------------------------|--------------------------|-------------------|-------|-----------------------|---------|--------------------------------|
| | | 0-25 | 25-50 | PUBLIC | PRIVATE | |
| Cottage Grove Reservoir | 0-25 | 1,158 | | Yes | No | 235,000 (1967) |
| Fall Creek Reservoir | 25-50 | | 1,880 | Yes | No | 218,000 (1967) |
| Fern Ridge Reservoir | 25-50 | | 9,000 | Yes | Yes | 1,169,000 (1967) |
| Hills Creek Reservoir | 25-50 | | 2,735 | Yes | No | 100,000 (1967) |
| Lookout Point-Dexter | 25-50 | | 5,385 | Yes | Yes | 318,000 (1967) |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

DORENA RESERVOIR

1. Reservoir description. - The project is located on the Row River, a tributary of the Coast Fork of the Willamette River in Lane County, Oregon, about 6 miles east of the town of Cottage Grove at about 800 feet elevation in the foothills of the Calapooya Mountains. A small amount of grazing land lies adjacent to the project with the nearby hills used mostly for lumber production. The shoreline varies from flat and swampy to moderately steep. The pool is drawn down each summer for conservation starting about mid-July and is 80 percent evacuated by mid-September. The total project area is about 2,500 acres, including over 1,900 acres of water at full pool.

2. Recreational resources. - The entire perimeter of the reservoir is served by paved roads linked to Interstate Highway No. 5 about 5 miles west of the project. The climate is characterized by mild, wet winters and warm, relatively dry summers with few seasonal extremes. A good sport fishery exists which includes trout as well as warm-water species. Other activities include picnicking, camping, boating, waterskiing, swimming, and sightseeing. Recreational use potential is limited by roads and a railroad which closely border the project. The nearest lodging accommodations are 5 miles along Interstate Highway No. 5 near the town of Cottage Grove. The residents of Cottage Grove and the Eugene-Springfield metropolitan area provide the majority of project recreation use. About 75 percent of the use originates from within 30 miles from the project. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: Fern Ridge

District: Portland

Project Location:

State or States: Oregon

County or Counties: Lane

River or Rivers: Long Tom River & Coyote Creek

Major Highway Access Routes: I-5, U.S. 99, State 126 & 36

Project Purposes: Flood control, irrigation & navigation

Year Impoundment Began: 1941

Pool Size:

Maximum: Acre Feet 101,200

Surface Acres 8,925

Shoreline Miles 32

Average Recreation: Surface Acres 8,925

Shoreline Miles 32

Number of Access Areas: 12

Recreation Facilities:

Tent and Trailer Spaces: 20

Day Use Areas (Capacity in Recreation Days) 1/ 18,000

Boat Launch Lanes: 9

| | | |
|-------------------------------|------|-----------|
| Attendance (Recreation Days): | 1968 | 1,284,656 |
| | 1967 | 1,169,100 |
| | 1966 | 820,346 |
| | 1965 | 548,300 |
| | 1964 | 575,632 |

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|-----|------|------|------|------|------|-------|
| | 6.4 | 10.5 | 18.3 | 24.4 | 18.2 | 6.9 | 84.7 |

1/ Average weekend day of peak month of use.

FERN RIDGE RESERVOIR

COMPETING WATER-ORIENTED RECREATION AREAS

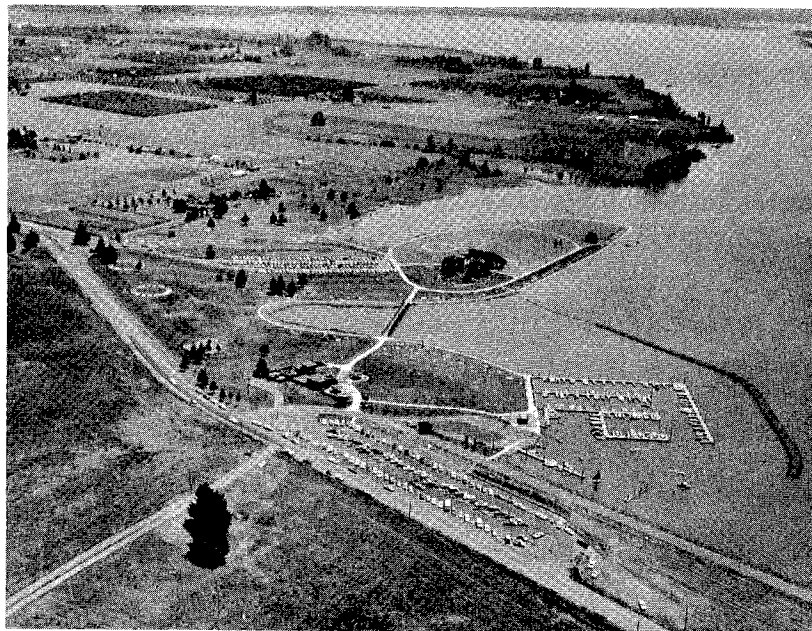
| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ | | RECREATION FACILITIES | | ESTIMATED ANNUAL ATTENDANCE |
|-------------------------|--------------------------|-------------------|-------|-----------------------|---------|--------------------------------|
| | | 0-25 | 25-50 | PUBLIC | PRIVATE | |
| Cottage Grove Reservoir | 25-50 | | 1,158 | Yes | No | 235,000 (1967) |
| Dorena Reservoir | 25-50 | | 1,900 | Yes | No | 192,000 (1967) |
| Fall Creek Reservoir | 25-50 | | 1,880 | Yes | No | 218,000 (1967) |
| Lookout Point-Dexter | 25-50 | | 5,385 | Yes | Yes | 318,000 (1967) |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

FERN RIDGE RESERVOIR

1. Reservoir description. - The project is located on the Long Tom River and Coyote Creek in Lane County about 12 miles northwest of Eugene at about 370 feet elevation. The surrounding land is mostly very flat. The area adjacent to the project is both agricultural and residential with numerous groves of deciduous and coniferous trees. The shoreline is flat and swampy to moderate in slope. The full pool level generally has been maintained until early in October, but future authorized irrigation withdrawals will alter the operation schedule. Total project area is about 12,000 acres, including 9,000 acres of water at full pool.

2. Recreational resources. - Good roads, mostly paved, provide access to the usable portion of the shoreline. Ready access to Interstate Highway No. 5, U. S. Highway 99 and State 126 and 36 is provided. The climate is characterized by mild, wet winters and warm, relatively dry summers with few seasonal extremes. A fair warm-water fishery exists in the reservoir and a good combination trout and warm-water fishery is provided by downstream borrow pits and the Long Tom River within the project. General recreational activities include picnicking, camping, boating, waterskiing, swimming, and sightseeing. Inadequate project lands limit the public recreation use; however, additional land acquisition is proposed. Winds sometime limit boating activities on the reservoir. Lodging accommodations are available in Eugene and along highways within 10 miles of the project. Utilization of the project is mostly by the population of the Eugene-Springfield metropolitan area. About 90 percent of recreational use originates from within 25 miles from the project. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: Hills Creek

District: Portland

Project Location:

State or States: Oregon

County or Counties: Lane

River or Rivers: Middle Fork Willamette

Major Highway Access Routes: State 58

Project Purposes: Flood control, conservation & power

Year Impoundment Began: 1961

Pool Size:

Maximum: Acre Feet 356,000

Surface Acres 2,819

Shoreline Miles 35

Average Recreation: Surface Acres 2,819

Shoreline Miles 35

Number of Access Areas: 5

Recreation Facilities:

Tent and Trailer Spaces: 58

Day Use Areas (Capacity in Recreation Days) 1/ 1,500

Boat Launch Lanes: 5

Attendance (Recreation Days): 1968 160,035

1967 99,600

1966 107,446

1965 95,500

1964 66,413

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|-----|------|------|------|------|------|-------|
| | 5.3 | 11.3 | 14.0 | 21.5 | 20.3 | 12.0 | 84.4 |

1/ Average weekend day of peak month of use.

HILLS CREEK RESERVOIR

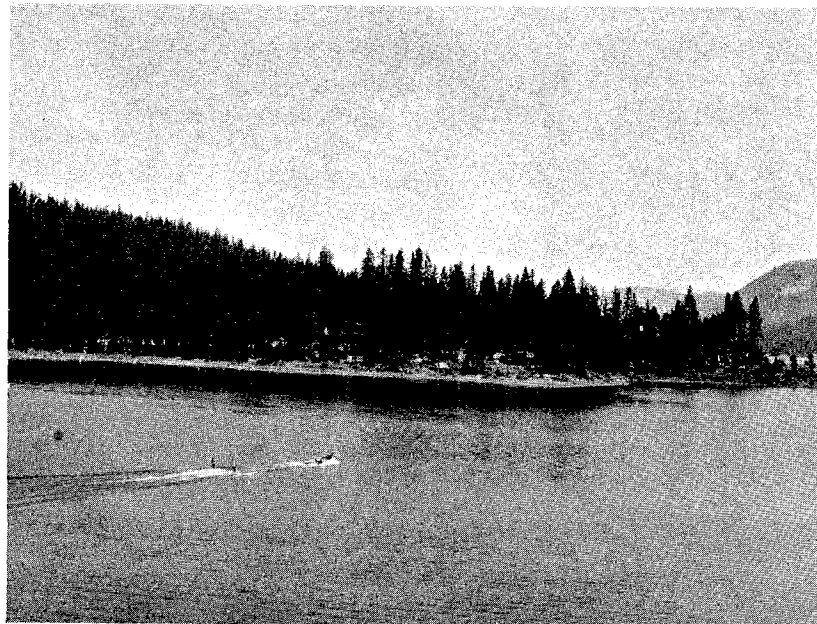
COMPETING WATER-ORIENTED RECREATION AREAS

| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ | | RECREATION FACILITIES | | ESTIMATED ANNUAL ATTENDANCE |
|----------------------|--------------------------|-------------------|-------|-----------------------|---------|--------------------------------|
| | | 0-25 | 25-50 | PUBLIC | PRIVATE | |
| Crescent Lake | 25-50 | | 3,672 | Yes | No | 200,000 (1967) |
| Dorena Reservoir | 25-50 | | 1,900 | Yes | No | 192,000 (1967) |
| Fall Creek Reservoir | 25-50 | | 1,880 | Yes | No | 218,000 (1967) |
| Lookout Point-Dexter | 0-25 | 5,385 | | Yes | Yes | 318,000 (1967) |
| Odell Lake | 25-50 | | 3,000 | Yes | No | 229,000 (1967) |
| Waldo Lake | 25-50 | | 6,000 | Yes | No | 45,000 (1967) |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

HILLS CREEK RESERVOIR

1. Reservoir description. - The project is located on the Middle Fork of the Willamette River in Lane County and about 4 miles southeast of the town of Oakridge. The area is in the Willamette National Forest at about 1,500 feet elevation in the Cascade Range of mountains. The shoreline is mostly very steep and the area is heavily timbered with stands of Douglas fir, hemlock, and cedar. The pool usually remains near full throughout most of the summer, with a drawdown of about 10 to 20 feet by 1 September. The total project area is 5,400 acres with 2,700 acres of water at full pool.
2. Recreational resources. - A good paved road serves the west shoreline and a narrow gravel road serves the east shoreline of the reservoir. U. S. Highway No. 58 passes within 2 miles of the project. The climate is characterized by mild, wet winters and warm, relatively dry summers with few seasonal extremes. A good trout fishery is maintained at the reservoir. General recreation activities include picnicking, camping, boating, waterskiing, swimming, and sightseeing. Recreation development is generally limited to small sites due to steepness of the shoreline. Motel accommodations are available along Highway No. 58 at Oakridge. Public use is mostly local with about 75 percent originating from within 10 miles of the project. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: Lookout Point District: Portland

Project Location:

State or States: Oregon

County or Counties: Lane

River or Rivers: Middle Fork Willamette

Major Highway Access Routes: State 58

Project Purposes: Flood control, power, navigation & irrigation

Year Impoundment Began: 1954

Pool Size:

Maximum: Acre Feet 483,500

Surface Acres 5,385

Shoreline Miles 44

Average Recreation: Surface Acres 5,300

Shoreline Miles 44

Number of Access Areas: 7

Recreation Facilities:

Tent and Trailer Spaces: 125

Day Use Areas (Capacity in Recreation Days) 1/ 5,000

Boat Launch Lanes: 10

| | | |
|-------------------------------|------|---------|
| Attendance (Recreation Days): | 1968 | 275,431 |
| | 1967 | 317,700 |
| | 1966 | 268,970 |
| | 1965 | 436,900 |
| | 1964 | 386,802 |

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|-----|-----|------|------|------|------|-------|
| | 6.5 | 8.0 | 19.2 | 21.6 | 16.2 | 10.3 | 81.8 |

1/ Average weekend day of peak month of use.

LOOKOUT POINT RESERVOIR

COMPETING WATER-ORIENTED RECREATION AREAS

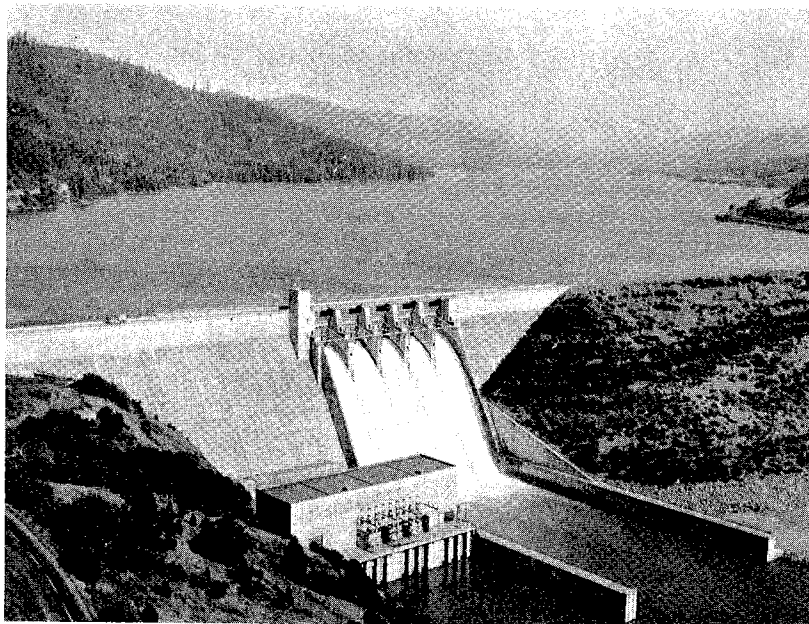
| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ 0-25 25-50 | | RECREATION FACILITIES PUBLIC PRIVATE | | ESTIMATED ANNUAL ATTENDANCE |
|-------------------------|--------------------------|---------------------------------|-------|---|-----|--------------------------------|
| | | | | | | |
| Cottage Grove Reservoir | 25-50 | | 1,158 | Yes | No | 235,000 (1967) |
| Cougar Reservoir | 25-50 | | 1,280 | Yes | No | 113,000 (1967) |
| Crescent Lake | 25-50 | | 3,672 | Yes | No | 200,000 (1967) |
| Davis Lake | 25-50 | | 3,720 | Yes | No | 160,000 (1967) |
| Dorena Reservoir | 0-25 | 1,900 | | Yes | No | 192,000 (1967) |
| Fall Creek Reservoir | 0-25 | 1,880 | | Yes | No | 218,000 (1967) |
| Fern Ridge Reservoir | 25-50 | | 9,000 | Yes | Yes | 1,169,000 (1967) |
| Hills Creek Reservoir | 0-25 | 2,735 | | Yes | No | 100,000 (1967) |
| Odell Lake | 25-50 | | 3,000 | Yes | No | 229,000 (1967) |
| Waldo Lake | 25-50 | | 6,000 | Yes | No | 45,000 (1967) |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

LOOKOUT POINT RESERVOIR
(LOOKOUT POINT & DEXTER RESERVOIRS)

1. Reservoir description. - The project is located on the Middle Fork of the Willamette River in Lane County, Oregon, on the westerly slope of the Cascade Range, partially within the Willamette National Forest at elevations ranging from about 700 to 1,000 feet. Little farmland is adjacent to the project which is surrounded mostly by commercially timbered slopes of fir, hemlock and cedar. The shoreline topography is moderate to steep. Lookout Point pool usually remains full or nearly full throughout the summer recreation season. Dexter Reregulating Reservoir immediately downstream remains nearly full, with a maximum 5 feet fluctuation throughout the year. Total project area is about 8,500 acres with about 5,385 acres of water at maximum pool.

2. Recreational resources. - Paved roads serve most of the reservoir shoreline. The exception is a gravel road traversing the right shoreline. State Highway No. 58 serves the entire left shoreline. The climate is characterized by mild, wet winters and warm, relatively dry summers with few seasonal extremes. A poor sport fishery exists as a result of a scrap fish problem. General recreation activities include picnicking, camping, boating, waterskiing, swimming, and sightseeing. Topography is good for recreational development at Dexter. Closely traversing roads and a railroad limit recreational development at both impoundments. Limited lodging and eating accommodations are located along Highway No. 58 near the project. About 70 percent of recreational use originates within 30 miles from the project. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: The Dalles

District: Portland

Project Location:

State or States: Oregon & Washington

County or Counties: (Ore) Wasco & Sherman
(Wash) Klickitat

River or Rivers: Columbia

Major Highway Access Routes: I-80, U.S. 830, 197 & 97

Project Purposes: Navigation, power & irrigation

Year Impoundment Began: 1957

Pool Size:

Maximum: Acre Feet 330,000

Surface Acres 9,400

Shoreline Miles 70

Average Recreation: Surface Acres 9,400

Shoreline Miles 70

Number of Access Areas: 10

Recreation Facilities:

Tent and Trailer Spaces: 54

Day Use Areas (Capacity in Recreation Days) 1/ 3,000

Boat Launch Lanes: 7

Attendance (Recreation Days): 1968 398,698

1967 311,700

1966 228,000

1965 201,500

1964 234,195

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|-----|------|------|------|------|------|-------|
| | 9.4 | 10.4 | 15.2 | 19.8 | 18.3 | 9.6 | 82.7 |

1/ Average weekend day of peak month of use.

THE DALLIES

COMPETING WATER-ORIENTED RECREATION AREAS

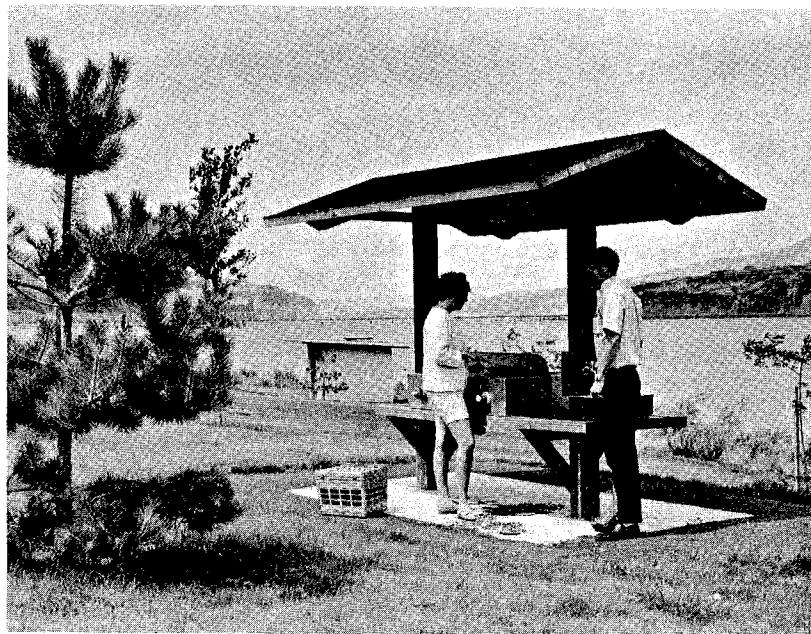
| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ | | RECREATION FACILITIES | | ESTIMATED ANNUAL ATTENDANCE |
|-------------------------------------|--------------------------|-------------------|--------|-----------------------|---------|--------------------------------|
| | | 0-25 | 25-50 | PUBLIC | PRIVATE | |
| Bonneville Reservoir | 0-50 | 10,000 | 10,000 | Yes | Yes | 1,134,000 (1967) |
| Lake Umatilla (John Day Project) | 0-50 | 25 | 30 | Yes | No | Not Available |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

THE DALLES DAM & LAKE CELILO

1. Reservoir description. - The project is a run-of-the-river power plant and navigation installation on the Columbia River in Wasco County, Oregon, and Klickitat County, Washington. It is about 200 miles from the Pacific Ocean, immediately east of The Dalles, Oregon, and 90 miles east of Portland, Oregon. The reservoir is surrounded by semi-arid hills, fruit orchards and grain fields. The shoreline is generally rugged with limited flat to moderate topography. The pool is generally stable throughout the year at about elevation 160 except for backwater effect during flood periods usually occurring in late spring. The total project area is 13,500 acres, including 9,400 acres of water, 2,300 acres fee owned land, and 1,800 acres of flowage easement.

2. Recreational resources. - Major highways and railroads traverse both shores of the reservoir, the most important highway being Interstate No. 80N along the Oregon shore. Other U. S. highways are 830, 197 and 97. The climate is semi-arid with temperatures commonly above 90° in the summer and subfreezing temperatures common in the winter. Temperature extremes recorded have been 115° and minus 30°. The generally fair sport fishery includes a variety of species such as salmon, steelhead, sturgeon, trout, and small-mouth bass. General recreation activities include picnicking, boating, waterskiing, swimming, and sightseeing. Closely skirting highways and railroads limit the recreational development potential. Lodging and restaurants are available along Interstate Highway No. 80N near the project. About 25 percent of the users originate from within 25 miles. Almost 50 percent of visitation occurs from over 100 miles, much of which is sightseeing by out-of-state visitors. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: Black Butte Reservoir District: Sacramento

Project Location:

State or States: California

County or Counties: Tehama & Glenn

River or Rivers: Stony Creek

Major Highway Access Routes: State 32

Project Purposes: Flood control & irrigation

Year Impoundment Began: 1963

Pool Size:

Maximum: Acre Feet 160,000

Surface Acres 4,560

Shoreline Miles 40

Average Recreation: Surface Acres 2,845

Shoreline Miles 25

Number of Access Areas: 5

Recreation Facilities:

Tent and Trailer Spaces: 37

Day Use Areas (Capacity in Recreation Days) 1/ 10,000

Boat Launch Lanes: 7

Attendance (Recreation Days): 1968 150,700

1967 179,700

1966 213,390

1965 155,820

1964 107,600

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|------|------|------|------|------|------|-------|
| | 15.3 | 13.9 | 15.1 | 16.0 | 10.2 | 6.7 | 77.2 |

1/ Average weekend day of peak month of use.

BLACK BUTTE RESERVOIR

COMPETING WATER-ORIENTED RECREATION AREAS

| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ | | RECREATION FACILITIES | | ESTIMATED ANNUAL ATTENDANCE |
|------------------------|--------------------------|-------------------|-------|-----------------------|---------|--------------------------------|
| | | 0-25 | 25-50 | PUBLIC | PRIVATE | |
| East Park Reservoir | 25-50 | | 1,820 | Yes | No | 38,900 (1967) |
| Lake Pillsbury | 25-50 | | 2,003 | Yes | Yes | Not Available |
| Letts Valley Reservoir | 25-50 | | 33 | No | Yes | Not Available |
| Sacramento River | 0-50 | 35 | 67 | Yes | Yes | Not Available |
| Stony Gorge Reservoir | 0-25 | 1,275 | | Yes | No | 31,986 (1967) |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

BLACK BUTTE RESERVOIR

1. Reservoir description. - Stony Creek Basin is located on the eastern slope of the Coast Range. Elevations in the basin range from about 400 feet at the damsite to about 7,000 feet in the higher reaches. The total land and water surface available for recreation is approximately 8,100 acres. The predominant soil of the area is a gravelly clay which supports native grasses and scattered oak trees. Gradient of the terrain in the general area is considered moderate.
2. Recreational resources. - Access to the project is provided by two two-lane paved roads, both from the same direction. The general reservoir area is characterized by hot, dry summers and moderate, wet winters. Normal annual rainfall in the area of the reservoir is about 17-20 inches of which about 90% occurs during the months of November through April. Temperatures in the basin have varied from a high of 120° F. and a low of 18° F.; mean summer temperature is 80° F. and the winter mean is 52° F. A warm water fishery is developing quite well. The water source is unpolluted and reservoir water quality is good, except during periods of high inflow when the reservoir becomes quite turbid. There are no commercial developments on the reservoir and there are no motels or other campgrounds nearby. The nearest population center, Orland, is 10 miles from the project -- in 1960 the population numbered 2,500 people. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: Englebright Reservoir District: Sacramento

Project Location:

State or States: California

County or Counties: Yuba & Nevada

River or Rivers: Yuba

Major Highway Access Routes: State 20

Project Purposes: Debris control

Year Impoundment Began: 1941

Pool Size:

Maximum: Acre Feet 70,000

Surface Acres 815

Shoreline Miles 24

Average Recreation: Surface Acres 750

Shoreline Miles 10

Number of Access Areas: 2

Recreation Facilities:

Tent and Trailer Spaces: 0

Day Use Areas (Capacity in Recreation Days) 1/ 4,000

Boat Launch Lanes: 2

| | | |
|-------------------------------|------|---------|
| Attendance (Recreation Days): | 1968 | 104,180 |
| | 1967 | 108,500 |
| | 1966 | 125,370 |
| | 1965 | 131,970 |
| | 1964 | 103,200 |

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|-----|------|------|------|------|------|-------|
| | 7.1 | 11.7 | 16.9 | 20.2 | 16.4 | 8.7 | 81.0 |

1/ Average weekend day of peak month of use.

ENGLEBRIGHT RESERVOIR

COMPETING WATER-ORIENTED RECREATION AREAS

| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ | | RECREATION FACILITIES | | ESTIMATED ANNUAL ATTENDANCE |
|-------------------------|--------------------------|-------------------|--------|-----------------------|---------|--------------------------------|
| | | 0-25 | 25-50 | PUBLIC | PRIVATE | |
| Bullards Bar | 0-25 | 515 | | Yes | Yes | Not Available |
| Camp Far West | 0-25 | 2,680 | | Yes | No | Not Available |
| Feather River | 25-50 | | 25 | Yes | Yes | Not Available |
| Folsom Lake | 25-50 | | 11,450 | Yes | Yes | 3,946,310 (1967) |
| French Meadows | 25-50 | | 1,418 | No | Yes | Not Available |
| Lake Combie | 25-50 | | 360 | Yes | No | Not Available |
| Lake Spaulding | 25-50 | | 674 | Yes | Yes | Not Available |
| Lake Valley Reservoir | 25-50 | | 312 | No | Yes | Not Available |
| Merle Collins Reservoir | 0-25 | 975 | | Yes | No | Not Available |
| Rollins Reservoir | 0-25 | 825 | | No | Yes | Not Available |
| Sacramento River | 25-50 | | 40 | Yes | Yes | Not Available |
| Sly Creek Reservoir | 25-50 | | 562 | No | Yes | Not Available |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

ENGLEBRIGHT RESERVOIR

1. Reservoir description. - The Yuba River Basin is located in the foothills of the northern Sierra Nevada Mountains. Elevations in the basin range from about 500 feet at the damsite to about 5,000 feet in the higher reaches. The total land and water surface available for recreation is approximately 1,800 acres. Typical in the area is a clay loam soil covered with native grass and heavy stands of oak. Slopes in the area are considered steep.

2. Recreational resources. - Access to the project is provided by one two-lane access road which splits to provide both access points. Access to the upper reaches of the reservoir is by boat only. The general reservoir area is characterized by hot, dry summers and moderate, wet winters. Normal annual rainfall in the area of the reservoir is about 20 inches of which about 90% occurs during the months of November through April. The maximum and minimum average summer temperatures are 97° and 47°, respectively. The high recorded is 118°. There are no motels or other campgrounds nearby. The water source is unpolluted and the water quality is good. A marina offers rental boats, boat stalls and off-shore boat mooring. The nearest population center is Marysville which is 20 miles from the project -- in 1960 the population numbered 9,600 people. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: Isabella Reservoir District: Sacramento

Project Location:

State or States: California

County or Counties: Kern

River or Rivers: Kern

Major Highway Access Routes: State 178

Project Purposes: Flood control & irrigation

Year Impoundment Began: 1954

Pool Size:

Maximum: Acre Feet 570,000

Surface Acres 11,400

Shoreline Miles 38

Average Recreation: Surface Acres 6,520

Shoreline Miles 30

Number of Access Areas: 30

Recreation Facilities:

Tent and Trailer Spaces: 745

Day Use Areas (Capacity in Recreation Days) 1/ 35,000

Boat Launch Lanes: 17

| | | |
|-------------------------------|------|-----------|
| Attendance (Recreation Days): | 1968 | 1,699,520 |
| | 1967 | 1,604,900 |
| | 1966 | 1,429,890 |
| | 1965 | 1,312,530 |
| | 1964 | 1,246,600 |

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|-----|------|------|------|------|------|-------|
| | 9.2 | 15.9 | 12.7 | 18.1 | 13.9 | 11.3 | 81.1 |

1/ Average weekend day of peak month of use.

ISABELLA RESERVOIR

COMPETING WATER-ORIENTED RECREATION AREAS

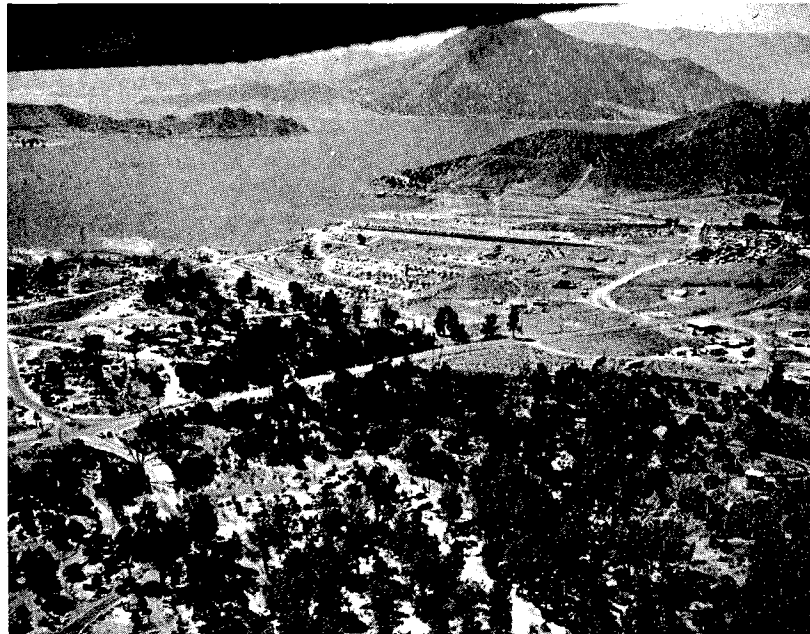
| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ | | RECREATION FACILITIES | | ESTIMATED ANNUAL ATTENDANCE |
|-----------|--------------------------|-------------------|-------|-----------------------|---------|--------------------------------|
| | | 0-25 | 25-50 | PUBLIC | PRIVATE | |
| Lake Ming | 25-50 | | 200 | No | Yes | 451,700 (1963) |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

ISABELLA RESERVOIR

1. Reservoir description. - The Kern River Basin is located on the western slopes of the Sierra Nevada Mountains. Elevations in the basin range from about 2,500 feet at the damsite to 6,500 feet in the higher reaches. The total land and water surface available for recreation is approximately 15,200 acres. Soil in this area generally consists of decomposed granite covered with native grass and scattered trees and brush. Slopes in the area are considered moderate.

2. Recreational resources. - Access to the project is provided by two two-lane paved roads. The reservoir has paved roads around its entire circumference. The general reservoir area is characterized by warm, dry summers and moderate winters. Normal annual rainfall in the area of the reservoir is about 10 inches of which about 90% occurs during the months of November through April. Temperatures have varied from 20° in winter to 110° in summer with an annual mean temperature of about 65°. Both warm and cold water species of fish are present and fishing is very good to excellent. There are motels and other campgrounds nearby. The water source is unpolluted and the water quality is good. A marina offers rental boats, boat stalls and off-shore boat mooring. The nearest population center is Bakersfield which is 45 miles from the project -- in 1960 the population numbered 56,800 people. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: New Hogan Reservoir District: Sacramento

Project Location:

State or States: California

County or Counties: Calaveras

River or Rivers: Calaveras

Major Highway Access Routes: State 12

Project Purposes: Flood control & irrigation

Year Impoundment Began: 1963

Pool Size:

Maximum: Acre Feet 325,000

Surface Acres 4,410

Shoreline Miles 50

Average Recreation: Surface Acres 2,650

Shoreline Miles 42

Number of Access Areas: 3

Recreation Facilities:

Tent and Trailer Spaces: 25

Day Use Areas (Capacity in Recreation Days) 1/ 10,000

Boat Launch Lanes: 3

| | | |
|-------------------------------|------|---------|
| Attendance (Recreation Days): | 1968 | 348,860 |
| | 1967 | 300,500 |
| | 1966 | 344,210 |
| | 1965 | 248,880 |
| | 1964 | 103,400 |

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|------|------|------|------|------|------|-------|
| | 10.7 | 13.8 | 14.4 | 16.4 | 12.3 | 7.8 | 75.4 |

1/ Average weekend day of peak month of use.

NEW HOGAN RESERVOIR

COMPETING WATER-ORIENTED RECREATION AREAS

| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ | | RECREATION FACILITIES | | ESTIMATED ANNUAL ATTENDANCE |
|---------------------------------|--------------------------|-------------------|-------|-----------------------|---------|--------------------------------|
| | | 0-25 | 25-50 | PUBLIC | PRIVATE | |
| Beardsley Reservoir | 25-50 | | 650 | No | Yes | Not Available |
| Comanche Reservoir | 0-25 | 7,699 | | Yes | No | Not Available |
| Don Pedro Reservoir | 25-50 | | 3,100 | Yes | No | Not Available |
| Lyons Reservoir | 25-50 | | 170 | Yes | No | Not Available |
| Melones Reservoir | 25-50 | | 1,843 | Yes | No | Not Available |
| Modesto Reservoir | 25-50 | | 3,800 | Yes | Yes | Not Available |
| Pardee Reservoir | 0-25 | 2,257 | | Yes | No | 20,000 (1959) |
| Phoenix Reservoir | 25-50 | | 50 | Yes | No | Not Available |
| Salt Spring Valley Reservoir | 25-50 | | 920 | Yes | No | Not Available |
| San Joaquin Delta Waterways | 25-50 | | 100 | Yes | Yes | Not Available |
| San Joaquin River | 25-50 | | 6 | Yes | No | Not Available |
| Tulloch Reservoir | 25-50 | | 1,260 | Yes | Yes | Not Available |
| Woodward Reservoir | 25-50 | | 2,427 | Yes | No | Not Available |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

NEW HOGAN RESERVOIR

1. Reservoir description. - The Calaveras River Basin is located in the central portion of the central valley on the western slope of the Sierra Nevada Mountains. Elevations in the basin range from about 550 feet at the damsite to about 6,000 feet in the higher reaches. The total land and water surface available for recreation is approximately 6,100 acres. The soil is generally gravelly and covered with native grass and scattered oak. Slopes in the area are considered moderate.
2. Recreational resources. - Access to the project is provided by three two-lane paved roads. The general reservoir area is characterized by long, hot, dry summers and short, mild, wet winters. Normal annual rainfall in the area of the reservoir is about 27 inches of which about 90% occurs during the months of November through April. Temperatures normally range from a winter low of about 30° to a summer high of about 105°. A very good warm water fishery has been established in the reservoir. There are no motels or campgrounds nearby. The water source is unpolluted and the water quality is good. A marina offers rental boats, boat stalls and off-shore boat mooring. The nearest population center is Stockton which is 37 miles from the project -- in 1960 the population numbered 86,300 people. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: Pine Flat Reservoir District: Sacramento

Project Location:

State or States: California

County or Counties: Fresno

River or Rivers: Kings

Major Highway Access Routes: State 180

Project Purposes: Flood control & irrigation

Year Impoundment Began: 1954

Pool Size:

Maximum: Acre Feet 1,000,000

Surface Acres 6,000

Shoreline Miles 67

Average Recreation: Surface Acres 3,450

Shoreline Miles 53

Number of Access Areas: 5

Recreation Facilities:

Tent and Trailer Spaces: 194

Day Use Areas (Capacity in Recreation Days)^{1/} 15,000

Boat Launch Lanes: 11

| | | |
|-------------------------------|------|---------|
| Attendance (Recreation Days): | 1968 | 528,990 |
| | 1967 | 592,200 |
| | 1966 | 589,240 |
| | 1965 | 491,050 |
| | 1964 | 663,200 |

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|------|------|------|------|------|------|-------|
| | 11.0 | 14.0 | 12.0 | 15.6 | 12.7 | 8.6 | 73.9 |

^{1/} Average weekend day of peak month of use.

PINE FLAT RESERVOIR

COMPETING WATER-ORIENTED RECREATION AREAS

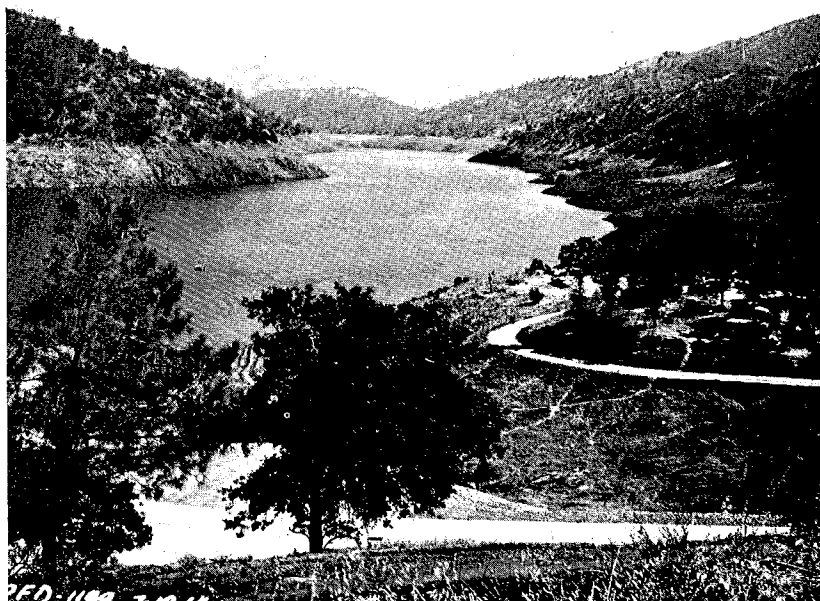
| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ | | RECREATION FACILITIES | | ESTIMATED ANNUAL ATTENDANCE |
|------------------------|--------------------------|-------------------|-------|-----------------------|---------|--------------------------------|
| | | 0-25 | 25-50 | PUBLIC | PRIVATE | |
| Bass Lake | 25-50 | | 1,165 | Yes | No | Not Available |
| Courtright Reservoir | 0-25 | 1,621 | | No | Yes | Not Available |
| Florence Lake | 25-50 | | 962 | Yes | Yes | Not Available |
| Hume Lake | 25-50 | | 85 | Yes | Yes | Not Available |
| Huntington Lake | 25-50 | | 1,441 | Yes | Yes | Not Available |
| Kerckhoff Reservoir | 0-25 | 160 | | No | Yes | Not Available |
| Kings River | 0-50 | 5 | 10 | Yes | No | Not Available |
| Lake Edison | 25-50 | | 1,890 | Yes | No | Not Available |
| Mammoth Pool Reservoir | 25-50 | | 1,000 | Yes | No | Not Available |
| Millerton Reservoir | 0-25 | 4,900 | | Yes | Yes | 720,000 (1967) |
| Redinger Reservoir | 0-25 | 1,165 | | No | Yes | Not Available |
| Shaver Lake | 0-25 | 2,177 | | Yes | Yes | Not Available |
| Terminus Reservoir | 25-50 | | 1,945 | Yes | Yes | 215,410 (1967) |
| Wishon Reservoir | 0-25 | 1,000 | | Yes | Yes | Not Available |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

PINE FLAT RESERVOIR

1. Reservoir description. - The Kings River Basin is located on the west slope of the southern Sierra Nevada Mountains. Elevations in the basin range from about 500 feet at the damsite to 14,000 feet in the higher reaches. The total land and water surface available for recreation is approximately 13,000 acres. Soil in this area generally consists of decomposed granite covered with brush and scattered deciduous trees. Slopes in the area are considered steep.

2. Recreational resources. - Access to the project is provided by three two-lane paved roads. The general reservoir area is characterized by hot, dry summers and mild, wet winters. Normal annual rainfall in the area of the reservoir is about 18 inches of which about 90% occurs during the months of November through April. Temperatures have varied from 18° in winter to a high of 114° in summer with an annual mean temperature of 68°. Both warm and cold water species of fish are present and fishing is considered fair. There are motels and other campgrounds nearby. The water source is unpolluted and the water quality is good. Two marinas offer rental boats, boat stalls and off-shore boat mooring. The nearest population center is Fresno which is 32 miles from the project -- in 1960 the population numbered 133,900 people. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: Success Reservoir District: Sacramento

Project Location:

State or States: California

County or Counties: Tulare

River or Rivers: Tule

Major Highway Access Routes: State 190

Project Purposes: Flood control & irrigation

Year Impoundment Began: 1961

Pool Size:

Maximum: Acre Feet 80,000

Surface Acres 2,450

Shoreline Miles 30

Average Recreation: Surface Acres 600

Shoreline Miles 7

Number of Access Areas: 6

Recreation Facilities:

Tent and Trailer Spaces: 50

Day Use Areas (Capacity in Recreation Days)^{1/} 12,000

Boat Launch Lanes: 7

| | | |
|-------------------------------|------|---------|
| Attendance (Recreation Days): | 1968 | 486,270 |
| | 1967 | 401,000 |
| | 1966 | 565,990 |
| | 1965 | 568,050 |
| | 1964 | 603,200 |

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|------|------|------|------|------|------|-------|
| | 12.4 | 13.5 | 13.6 | 13.6 | 11.0 | 8.3 | 72.4 |

^{1/} Average weekend day of peak month of use.

SUCCESS RESERVOIR

COMPETING WATER-ORIENTED RECREATION AREAS

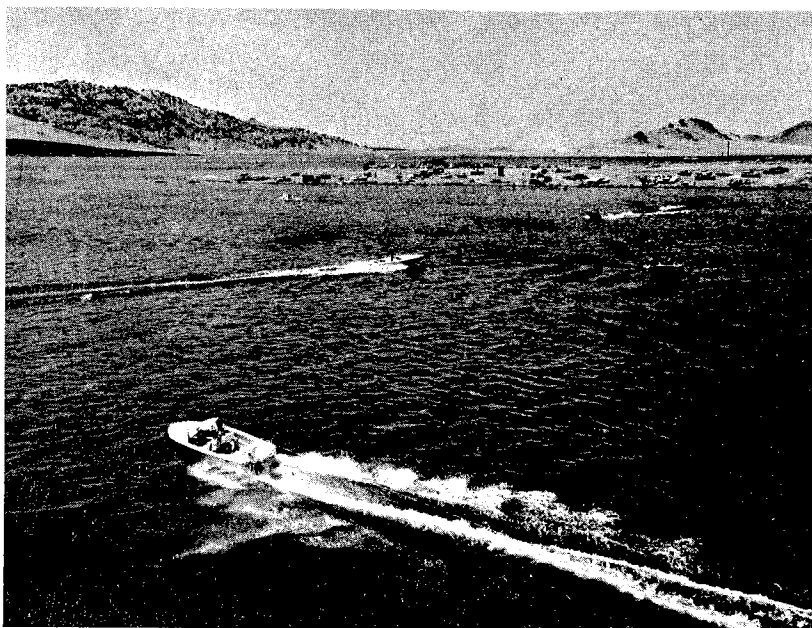
| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH I/ 0-25 25-50 | | | RECREATION FACILITIES PUBLIC PRIVATE | | ESTIMATED ANNUAL ATTENDANCE |
|---------------|--------------------------|---------------------------------|-------|--|---|---------|--------------------------------|
| | | 0-25 | 25-50 | | PUBLIC | PRIVATE | |
| Bravo Lake | 25-50 | | 150 | | Yes | No | Not Available |
| Lake Woolomes | 25-50 | | 300 | | No | Yes | 150,000 (1967) |
| Terminus | 25-50 | | 1,945 | | Yes | Yes | 215,410 (1967) |

I/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

SUCCESS RESERVOIR

1. Reservoir description. - The Tule River Basin is located at the western edge of the Sierra Nevada foothills in the southern portion of the central valley. Elevations in the basin range from about 550 feet at the damsite to about 10,000 feet in the higher reaches. The total land and water surface available for recreation is approximately 4,100 acres. The area is typified by sandy loam soil covered with native grass and scattered brush. Slopes in the area are considered moderate.

2. Recreational resources. - Access to the project is provided by one two-lane paved road. The general reservoir area is characterized by hot, dry summers and mild, wet winters. Normal annual rainfall in the area of the reservoir is about 10 inches of which about 90% occurs during the months of November through April. The average annual temperature is about 64° and the temperature extremes are 114° and 18°. A good warm water fishery is continuing at this reservoir. There are no motel or other campgrounds nearby. The water source is unpolluted and the water quality is good. A marina offers rental boats, boat stalls and off-shore boat mooring. The nearest population center is Porterville which is 5 miles from the project -- in 1960 the population numbered 8,000 people. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: **Terminus Reservoir** District: **Sacramento**

Project Location:

State or States: **California**

County or Counties: **Tulare**

River or Rivers: **Kaweah**

Major Highway Access Routes: **State 198**

Project Purposes: **Flood control & irrigation**

Year Impoundment Began: **1962**

Pool Size:

Maximum: Acre Feet 150,000

Surface Acres 1,945

Shoreline Miles 22

Average Recreation: Surface Acres 570

Shoreline Miles 8

Number of Access Areas: 5

Recreation Facilities:

Tent and Trailer Spaces: 0

Day Use Areas (Capacity in Recreation Days) ^{1/} 10,000

Boat Launch Lanes: 6

| | | |
|-------------------------------|------|---------|
| Attendance (Recreation Days): | 1968 | 328,870 |
| | 1967 | 215,400 |
| | 1966 | 396,600 |
| | 1965 | 455,370 |
| | 1964 | 368,400 |

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|------|------|------|------|------|------|-------|
| | 10.7 | 14.5 | 13.6 | 14.1 | 13.5 | 8.7 | 75.1 |

^{1/} Average weekend day of peak month of use.

TERMINUS RESERVOIR

COMPETING WATER-ORIENTED RECREATION AREAS

| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ | | RECREATION FACILITIES | | ESTIMATED ANNUAL ATTENDANCE |
|---------------------|--------------------------|-------------------|-------|-----------------------|---------|--------------------------------|
| | | 0-25 | 25-50 | PUBLIC | PRIVATE | |
| Bravo Lake | 0-25 | 150 | | Yes | No | Not Available |
| Peoples Weir | 25-50 | | 40 | Yes | No | Not Available |
| Pine Flat Reservoir | 25-50 | | 6,000 | Yes | Yes | 592,270 (1967) |
| Success Reservoir | 25-50 | | 2,450 | Yes | Yes | 400,960 (1967) |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

TERMINUS RESERVOIR

1. Reservoir description. - The Kaweah River Basin is located on the westerly slope of the Sierra Nevada Mountains. Elevations in the basin range from about 510 feet at the damsite to over 12,500 feet in the higher reaches. The total land and water surface available for recreation is approximately 2,600 acres. The area is typified by sandy loam soil covered with native grass and scattered brush. Slopes in the area are considered moderate.
2. Recreational resources. - Access to the project is provided by one two-lane paved road. The general reservoir area is characterized by hot, dry summers and cool, wet winters. Normal annual rainfall in the area of the reservoir is about 18 inches of which about 90% occurs during the months of November through April. Temperatures normally range from a winter low of about 30° to a summer high of 110°. A warm water fishery at this reservoir is rated as fair. There are several motels within 6 miles of the reservoir, however, there are no other campgrounds in the area. The water source is unpolluted and the water quality is good. A marina offers rental boats, boat stalls and off-shore boat mooring. The nearest population center is Visalia which is 20 miles from the project -- in 1960 the population numbered 15,800 people. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: Clark Hill

District: Savannah

Project Location:

State or States: Georgia & South Carolina

County or Counties: (Ga) Lincoln, Wilkes, McDuffie & Columbia
(SC) McCormick

River or Rivers: Savannah

Major Highway Access Routes: (Ga) U.S. 378, 221 & 78, State 150, 79,
47, 43 & 23

Project Purposes: Flood control, navigation, power & recreation

Year Impoundment Began: 1951

Pool Size:

Maximum: Acre Feet 2,900,000

Surface Acres 78,000

Shoreline Miles 1,200

Average Recreation: Surface Acres 71,533

Shoreline Miles 1,060

Number of Access Areas: 71

Recreation Facilities:

Tent and Trailer Spaces: 502

Day Use Areas (Capacity in Recreation Days) 1/ 13,137

Boat Launch Lanes: 52

| | | |
|-------------------------------|------|-----------|
| Attendance (Recreation Days): | 1968 | 3,368,200 |
| | 1967 | 3,771,100 |
| | 1966 | 4,696,585 |
| | 1965 | 4,264,150 |
| | 1964 | 3,723,425 |

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|------|------|------|------|------|------|-------|
| | 11.0 | 11.3 | 15.6 | 19.6 | 13.9 | 9.1 | 80.5 |

1/ Average weekend day of peak month of use.

CLARK HILL RESERVOIR

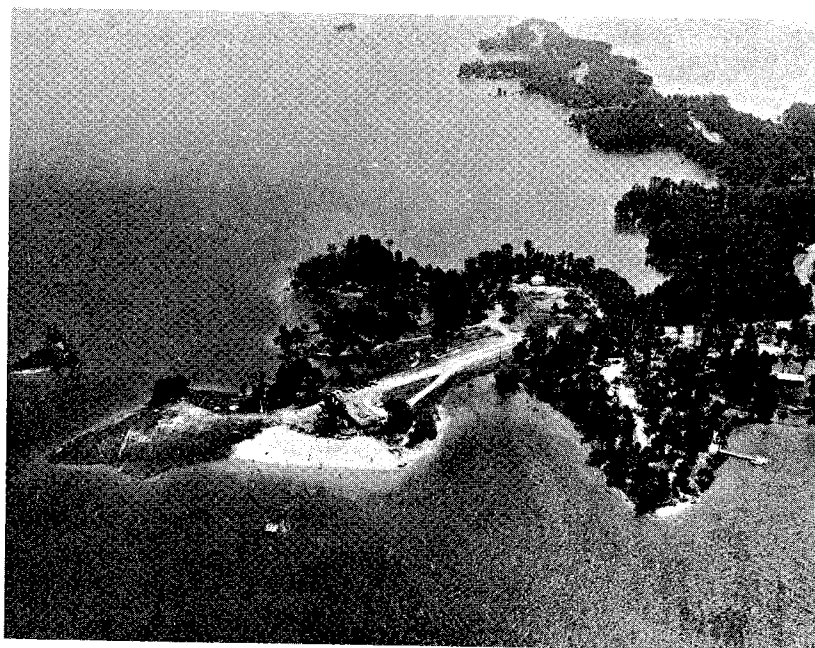
COMPETING WATER-ORIENTED RECREATION AREAS

| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ | | RECREATION FACILITIES | | ESTIMATED ANNUAL ATTENDANCE |
|----------------------------------|--------------------------|-------------------|--------|-----------------------|---------|--------------------------------|
| | | 0-25 | 25-50 | PUBLIC | PRIVATE | |
| Hartwell Project | 25-50 | | 55,950 | Yes | No | 3,322,600 (1967) |
| New Savannah Bluff Lock & Dam | 25-50 | | 1,300 | Yes | No | 272,900 (1967) |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

CLARK HILL RESERVOIR

1. Reservoir description. - The Clark Hill Project is located on the Savannah River and lies within the boundaries of Georgia and South Carolina. The terrain surrounding the lake rises to a maximum elevation of 500 feet above sea level. The topography is typical of the Eastern Piedmont - flat-topped ridges rising between stream valleys. The majority of the reservoir land area is well stocked with second growth timber, mostly pine, with a variety of native hardwoods. Normally, the water level of the reservoir is fairly stable during the recreation season, but is subject to gradual decrease in late summer and fall. The maximum water storage occurs in May. The project area is comprised of 155,886 acres of land and water of which approximately 155,686 acres of land and water are available for some form of recreational use.
2. Recreational resources. - Access to the reservoir is provided by approximately 750 roads ending at the water's edge. The reservoir area is reached by three major U. S. routes and five major State routes. In general, the climate of the area may be described as one of short, mild winters and long, hot summers. The yearly rainfall average is 45 inches and is rather evenly distributed. The reservoir is well stocked with a variety of sport fish which attract a large number of anglers yearly. The land portion of the reservoir abounds with small upland game species and the deer and turkey population has increased to the point where managed hunts are now allowed in the Wildlife Management Areas. There are over 50 rental units located within a one-mile radius of project lands. There are numerous subdivisions located near the reservoir which consist of mostly second homes, but a few year-round residences. The nearest population center is the Augusta, Georgia, Metropolitan Area (estimated 260,000), approximately 25 miles from the reservoir. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: Hartwell

District: Savannah

Project Location:

State or States: Georgia & South Carolina

County or Counties: (Ga) Stephens, Franklin & Hart
(SC) Oconee & Anderson

River or Rivers: Savannah

Major Highway Access Routes: (SC) I-85, U.S. 178, 123, 76 & 29,
State 28 & 24

Project Purposes: Flood control, navigation & power

Year Impoundment Began: 1961

Pool Size:

Maximum: Acre Feet 2,843,000

Surface Acres 63,000

Shoreline Miles Not Available

Average Recreation: Surface Acres 55,950

Shoreline Miles 962

Number of Access Areas: 68

Recreation Facilities:

Tent and Trailer Spaces: 183

Day Use Areas (Capacity in Recreation Days) 1/ 11,961

Boat Launch Lanes: 58

| | | |
|-------------------------------|------|-----------|
| Attendance (Recreation Days): | 1968 | 4,227,300 |
| | 1967 | 3,322,600 |
| | 1966 | 4,230,700 |
| | 1965 | 3,092,700 |
| | 1964 | 1,550,000 |

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|------|------|------|------|------|------|-------|
| | 10.1 | 12.1 | 14.5 | 17.2 | 11.4 | 8.1 | 73.4 |

1/ Average weekend day of peak month of use.

HARTWELL RESERVOIR

COMPETING WATER-ORIENTED RECREATION AREAS

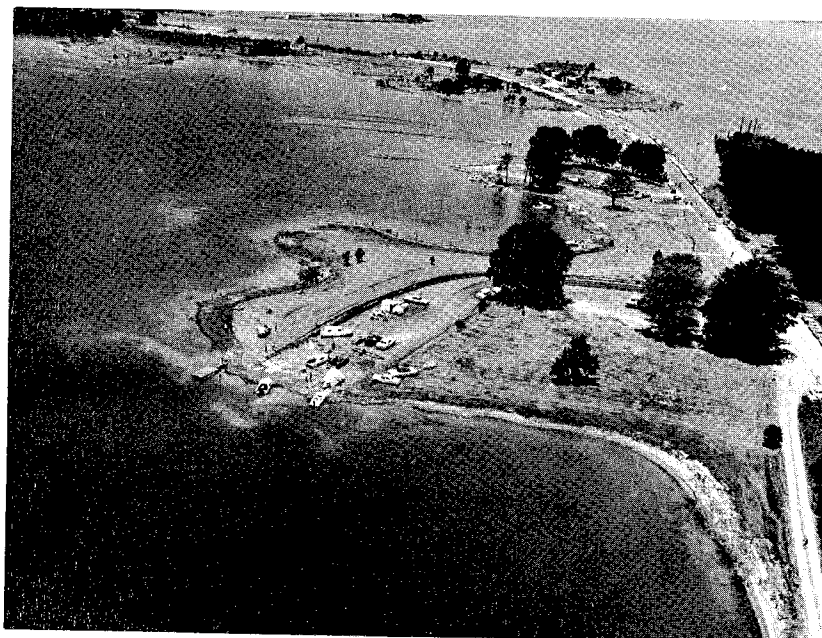
| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ | | RECREATION FACILITIES | | ESTIMATED ANNUAL ATTENDANCE |
|----------------------|--------------------------|-------------------|--------|-----------------------|---------|--------------------------------|
| | | 0-25 | 25-50 | PUBLIC | PRIVATE | |
| Clark Hill Reservoir | 25-50 | | 71,533 | Yes | Yes | 3,838,600 (1967) |
| Lake Lanier | 25-50 | | 39,944 | Yes | Yes | 8,803,300 (1966) |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

HARTWELL RESERVOIR

1. Reservoir description. - Hartwell Reservoir is located on the Savannah River, Georgia and South Carolina, approximately 89 miles upstream from Augusta, Georgia, and approximately 30 miles above the headwaters of the Clark Hill Reservoir. The surrounding area is generally steep with slopes ranging from 5 percent to over 25 percent in the upper reaches of the reservoir. The lower portion of the reservoir lies within the Piedmont Plateau while the upper portion extends into the Blue Ridge Mountain area. The timber stands are generally pine-hardwood occurring in varying mixtures. The reservoir pool elevation fluctuates from a high of 665 to a low of 625 (m.s.l.). Maximum water storage usually occurs during the months of May and June. The project area comprises 76,780 acres of which approximately 76,580 acres are available for recreational use.

2. Recreational resources. - Access to the reservoir is good with approximately 700 of the 912 miles of shoreline accessible by roads, the majority of which are paved. The reservoir area is reached by one interstate route, four major U. S. routes, and two major State routes. The climate of the Hartwell Reservoir area can generally be described as temperate and conducive to outdoor-based recreational activities for approximately 8 months of the year. The reservoir area has an average annual rainfall of approximately 48 inches. Hartwell Reservoir supports a large sport fishery. All water-oriented recreation activities are allowed. There are almost 200 rental units located within one mile of the reservoir. There are a large number of subdivisions located on private property adjacent to Government property. The majority of homes in these subdivisions are year-round residences. The nearest population center is the Anderson Metropolitan Area (estimated 75,000), approximately 10 miles from the reservoir. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: Canton

District: Tulsa

Project Location:

State or States: Oklahoma

County or Counties: Blaine & Dewey

River or Rivers: North Canadian

Major Highway Access Routes: State 51, 58 & 58A

Project Purposes: Flood control, irrigation & water supply

Year Impoundment Began: 1948

Pool Size:

Maximum: Acre Feet 386,000

Surface Acres 15,800

Shoreline Miles Not Available

Average Recreation: Surface Acres 7,800

Shoreline Miles 45

Number of Access Areas: 6

Recreation Facilities:

Tent and Trailer Spaces: 75

Day Use Areas (Capacity in Recreation Days) ^{1/} 10,640

Boat Launch Lanes: 10

| | | |
|-------------------------------|------|-----------|
| Attendance (Recreation Days): | 1968 | 1,044,500 |
| | 1967 | 872,400 |
| | 1966 | 935,000 |
| | 1965 | 782,900 |
| | 1964 | 790,800 |

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|-----|------|------|------|------|------|-------|
| | 8.6 | 13.1 | 16.3 | 17.9 | 14.0 | 7.3 | 77.2 |

^{1/} Average weekend day of peak month of use.

CANTON RESERVOIR

COMPETING WATER-ORIENTED RECREATION AREAS

| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ | | RECREATION FACILITIES | | ESTIMATED ANNUAL ATTENDANCE |
|-------------------|--------------------------|-------------------|-------|-----------------------|---------|--------------------------------|
| | | 0-25 | 25-50 | PUBLIC | PRIVATE | |
| Great Salt Plains | 25-50 | | 9,300 | Yes | No | 567,800 (1967) |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).



A-159

PERTINENT DATA

Project Name: Denison

District: Tulsa

Project Location:

State or States: Oklahoma & Texas

County or Counties: (Okla) Love, Marshall, Bryan & Johnston
(Tex) Grayson & Cooke

River or Rivers: Red & Washita

Major Highway Access Routes: (Okla) U.S. 69, 70 & 75, State 199, 99,
299, 32 & 22

(Tex) U.S. 77 & 82, State 10 & 84

Project Purposes: Flood control, power, water supply & navigation

Year Impoundment Began: 1944

Pool Size:

Maximum: Acre Feet 5,382,000

Surface Acres 143,300

Shoreline Miles 1,100

Average Recreation: Surface Acres 89,000

Shoreline Miles 580

Number of Access Areas: 52

Recreation Facilities:

Tent and Trailer Spaces: 1,430

Day Use Areas (Capacity in Recreation Days) 1/ 72,200

Boat Launch Lanes: 82

| | | |
|-------------------------------|------|-----------|
| Attendance (Recreation Days): | 1968 | 8,793,600 |
| | 1967 | 8,790,800 |
| | 1966 | 8,287,400 |
| | 1965 | 8,905,400 |
| | 1964 | 8,197,400 |

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|-----|------|------|------|------|------|-------|
| | 7.7 | 10.0 | 15.2 | 16.7 | 13.5 | 9.7 | 72.8 |

1/ Average weekend day of peak month of use.

DEVISON RESERVOIR

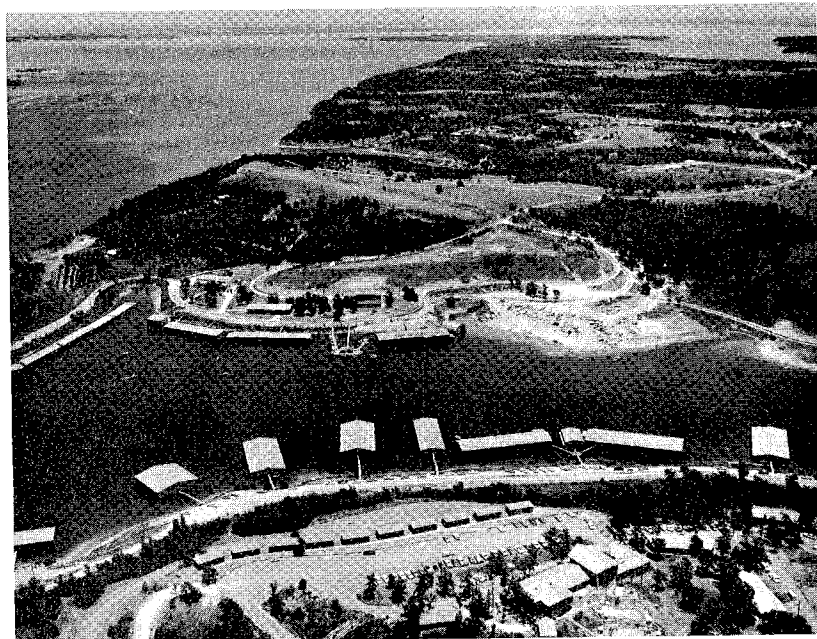
COMPETING WATER-ORIENTED RECREATION AREAS

| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ | | RECREATION FACILITIES | | ESTIMATED ANNUAL ATTENDANCE |
|--------------------|--------------------------|-------------------|---------------|-----------------------|---------------|--------------------------------|
| | | 0-25 | 25-50 | PUBLIC | PRIVATE | |
| Arbuckle Reservoir | 25-50 | Not Available | Not Available | Not Available | Not Available | Not Available |
| Atoka Reservoir | 25-50 | Not Available | Not Available | Not Available | Not Available | Not Available |
| Lake Murray | 25-50 | Not Available | Not Available | Not Available | Not Available | Not Available |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

DENISON RESERVOIR

1. Reservoir description. - The project area is located in the Red River Valley in Bryan County, Oklahoma, and Grayson County, Texas, at about 500 feet elevation. The general topography of the area surrounding the reservoir is rolling and hilly with occasional escarpments and benches. In many places, the valley slopes are steep, resulting in rugged cliffs, hills, and promontories along the shoreline. The Government-owned land area above the top of the power pool is 102,368 acres, making a total area of 195,448 acres for the reservoir.
2. Recreational resources. - Access to the project area is furnished by U. S. Highway Nos. 69, 70, 75, 77, and 82; Oklahoma State Highway Nos. 22, 32, 99, 199, and 299; and Texas State Highway Nos. 10 and 84. Numerous county roads serve the reservoir area. As evidenced by the estimated 3,900,000 pounds of fish taken during fiscal year 1967, the reservoir is one of the most important fish-producing reservoirs in the area. In addition to the fishing, the U. S. Fish and Wildlife Service manages the Hagerman and Tishomingo Wildlife Refuges for the protection of waterfowl and controlled public hunting. The Oklahoma Department of Wildlife Conservation manages 3,915 acres under license for public hunting; this area is managed primarily for deer, turkey and upland game. In addition to numerous motel and camp facilities on private property adjoining project land, there are 24 guest establishments with a total of 403 rental units on project lands. The nearest population center is the Dalles-Fort Worth area containing an estimated population of 1,490,000, approximately 80 miles from the project. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: Eufaula

District: Tulsa

Project Location:

State or States: Oklahoma

County or Counties: McIntosh, Haskell, Pittsburg & Okmulgee

River or Rivers: Canadian

Major Highway Access Routes: I-40, U.S. 62 & 69, State 113, 71, 31 & 9

Project Purposes: Flood control, power & navigation

Year Impoundment Began: 1960

Pool Size:

| | |
|-----------------------------------|---------------|
| Maximum: Acre Feet | 3,848,000 |
| Surface Acres | 143,000 |
| Shoreline Miles | Not Available |
| Average Recreation: Surface Acres | 102,500 |
| Shoreline Miles | 600 |

Number of Access Areas: 24

Recreation Facilities:

| | |
|---|--------|
| Tent and Trailer Spaces: | 555 |
| Day Use Areas (Capacity in Recreation Days) ^{1/} | 14,350 |
| Boat Launch Lanes: | 54 |

| | | |
|-------------------------------|------|-----------|
| Attendance (Recreation Days): | 1968 | 2,312,900 |
| | 1967 | 2,001,800 |
| | 1966 | 2,157,600 |
| | 1965 | 2,305,100 |
| | 1964 | 167,500 |

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|-----|------|------|------|------|------|-------|
| | 9.3 | 12.0 | 13.3 | 15.0 | 13.8 | 9.4 | 72.8 |

^{1/} Average weekend day of peak month of use.

EUFULA RESERVOIR

COMPETING WATER-ORIENTED RECREATION AREAS

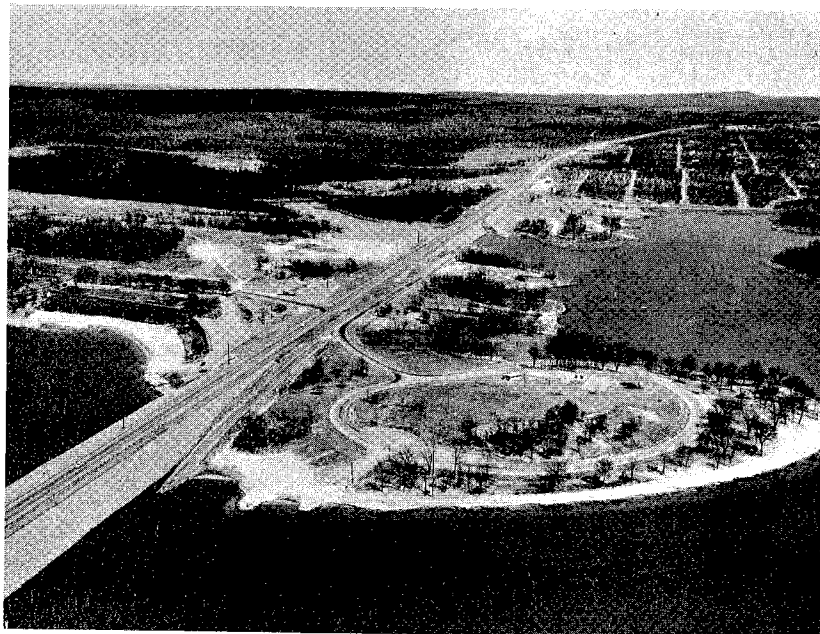
| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ | | RECREATION FACILITIES | | ESTIMATED ANNUAL ATTENDANCE |
|---------------------------|--------------------------|-------------------|--------|-----------------------|---------|--------------------------------|
| | | 0-25 | 25-50 | PUBLIC | PRIVATE | |
| Fort Gibson Reservoir | 25-50 | | 19,000 | Yes | Yes | 2,111,700 (1967) |
| Greenleaf State Park | 0-25 | 930 | | Yes | Yes | Not Available |
| Lake Wister | 25-50 | | 4,000 | Yes | Yes | 565,700 (1967) |
| Robbers Cave | 25-50 | | 73 | Yes | No | Not Available |
| Tenkiller Ferry Reservoir | 25-50 | | 12,500 | Yes | Yes | 1,372,600 (1967) |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

EUFULA RESERVOIR

1. Reservoir description. - The project area is located on the Canadian River in McIntosh, Haskell, Pittsburg and Okmulgee Counties, Oklahoma, about 12 miles east of Eufaula and 31 miles south of Muskogee. The topography of the reservoir area is variable -- from broad basins to more restricted valleys confined by rolling hills and steep bluffs. At the confluence of the North Canadian and South Canadian Rivers, the lake is restricted between Brooken Mountain on the south and a large promontory on the north forming a scenic feature of the reservoir area. Approximately 66,000 acres of Government-owned land border the 102,500 acre power pool which has approximately 600 miles of shoreline.

2. Recreational resources. - Access to the area is provided principally by U. S. Highway Nos. 62, 69, and 266; Oklahoma State Highway Nos. 31 and 71; and Interstate Highway I-40. Numerous county and section line roads will provide access to the reservoir. The climate of the area is characterized by mild spring weather, hot summers, and moderate autumns providing a long recreation season. The lake has proven to be an outstanding sport fishing center and the Oklahoma Department of Wildlife Conservation has carried out an extensive walleye stocking program. There has also been large concentrations of migratory waterfowl during fall hunting seasons. There are numerous motel units on private property adjoining the project and two guest establishments with a total of 430 rental units on Government-owned land. There are 95 subdivisions platted and laid out adjacent to project boundaries. The city population within a 150 mile radius of the project is estimated to be 1,162,705. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: Fall River District: Tulsa

Project Location:

State or States: Kansas

County or Counties: Greenwood

River or Rivers: Fall

Major Highway Access Routes: U.S. 54, State 99 & 96

Project Purposes: Flood control & conservation

Year Impoundment Began: 1949

Pool Size:

Maximum: Acre Feet 259,000

Surface Acres 10,500

Shoreline Miles Not Available

Average Recreation: Surface Acres 2,450

Shoreline Miles 40

Number of Access Areas: 10

Recreation Facilities:

Tent and Trailer Spaces: 110

Day Use Areas (Capacity in Recreation Days) ^{1/} 6,650

Boat Launch Lanes: 11

| | | |
|-------------------------------|------|---------|
| Attendance (Recreation Days): | 1968 | 386,225 |
| | 1967 | 468,000 |
| | 1966 | 406,500 |
| | 1965 | 459,400 |
| | 1964 | 538,400 |

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|------|------|------|------|------|------|-------|
| | 10.3 | 12.7 | 13.2 | 16.7 | 14.7 | 11.5 | 79.1 |

^{1/} Average weekend day of peak month of use.

FALL RIVER RESERVOIR

COMPETING WATER-ORIENTED RECREATION AREAS

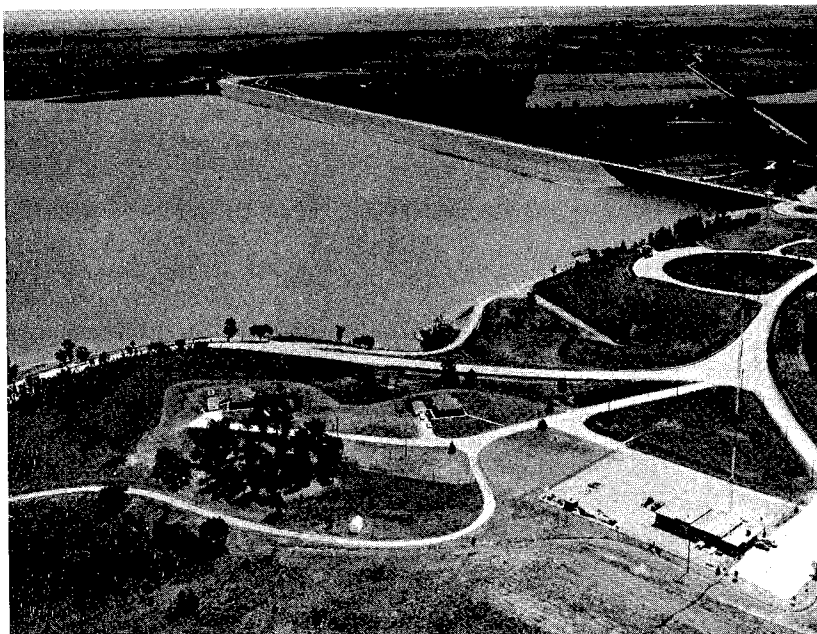
| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ | | RECREATION FACILITIES | | ESTIMATED ANNUAL ATTENDANCE |
|------------------------|--------------------------|-------------------|-------|-----------------------|---------|--------------------------------|
| | | 0-25 | 25-50 | PUBLIC | PRIVATE | |
| Elk City Reservoir | 25-50 | | 3,550 | Yes | Yes | 378,400 (1967) |
| Hulah Reservoir | 25-50 | | 3,600 | Yes | Yes | 333,900 (1967) |
| John Redmond Reservoir | 25-50 | | 7,780 | Yes | Yes | 570,400 (1967) |
| Toronto Reservoir | 0-25 | 2,800 | | No | Yes | 346,600 (1967) |
| Wilson State Lake | 0-25 | Not Available | | No | Yes | Not Available |
| Woodson State Lake | 0-25 | Not Available | | No | Yes | Not Available |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

FALL RIVER RESERVOIR

1. Reservoir description. - The project is located on Fall River in Greenwood County, Kansas. The damsite is about four miles northwest of the town of Fall River and 17 miles southeast of Eureka, Kansas. Bottom lands of the area are generally flat while valley slopes vary from undulating to rolling hills; near the damsite, the sides of the valley are more pronounced and rugged. The lake is generally shallow and vertical fluctuations of the pool will result in rather extensive horizontal fluctuations of the shoreline. The project area comprises 13,982 acres of land all available for recreation. Of this, 3,000 acres are leased to the Kansas State Park and Resources Authority for park purposes and the remaining 10,892 acres have been licensed to the Kansas Forestry, Fish and Game Commission for wildlife management purposes.

2. Recreational resources. - Primary access to the area is furnished by U. S. Highway 54 and Kansas State Highway Nos. 96 and 99. Practically all parts of the reservoir are accessible by county roads. The reservoir lies within a region characterized by moderate winters and comparatively long summers. The reservoir is one of the most popular and productive fisheries in the area. Due to the management program of the Kansas Forestry, Fish and Game Commission, the area has become an important hunting area, both for migratory waterfowl and upland game. There are a number of small motels in the area; also, there are several cabins and cottages adjacent to Government-owned land that are frequented throughout the entire year. The nearest metropolitan area is Wichita, Kansas, with an estimated population of 269,000, 79 miles from the project. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: Fort Gibson

District: Tulsa

Project Location:

State or States: Oklahoma

County or Counties: Cherokee & Wagoner

River or Rivers: Grand (Neosho)

Major Highway Access Routes: U.S. 62 & 69, State 80, 51, 33 & 16

Project Purposes: Flood control & power

Year Impoundment Began: 1953

Pool Size:

| | |
|--------------------|---------------|
| Maximum: Acre Feet | 1,284,400 |
| Surface Acres | 51,000 |
| Shoreline Miles | Not Available |

| | |
|-----------------------------------|--------|
| Average Recreation: Surface Acres | 19,000 |
| Shoreline Miles | 225 |

Number of Access Areas: 25

Recreation Facilities:

Tent and Trailer Spaces: 1,009

Day Use Areas (Capacity in Recreation Days)^{1/} 21,660

Boat Launch Lanes: 69

| | | |
|-------------------------------|------|-----------|
| Attendance (Recreation Days): | 1968 | 2,406,500 |
| | 1967 | 2,111,700 |
| | 1966 | 2,427,300 |
| | 1965 | 2,466,300 |
| | 1964 | 2,806,400 |

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|-----|-----|------|------|------|------|-------|
| | 7.5 | 9.5 | 12.5 | 16.4 | 14.0 | 10.4 | 70.3 |

^{1/} Average weekend day of peak month of use.

FORT GIBSON RESERVOIR

COMPETING WATER-ORIENTED RECREATION AREAS

| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ | | RECREATION FACILITIES | | ESTIMATED ANNUAL ATTENDANCE |
|---------------------------|--------------------------|-------------------|---------------|-----------------------|---------|--------------------------------|
| | | 0-25 | 25-50 | PUBLIC | PRIVATE | |
| Eufaula Reservoir | 25-50 | | 102,500 | Yes | Yes | 2,001,800 (1967) |
| Grand Lake | 25-50 | | Not Available | Yes | Yes | Not Available |
| Greenleaf State Park | 0-25 | 930 | | Yes | Yes | Not Available |
| Lower Spavinaw Lake | 25-50 | | 2,880 | Yes | No | 16,000 (1967) |
| Markham Ferry Reservoir | 25-50 | | Not Available | Yes | Yes | Not Available |
| Oologah Reservoir | 25-50 | | 5,850 | Yes | Yes | 1,178,200 (1967) |
| Tenkiller Ferry Reservoir | 0-25 | 12,500 | | Yes | Yes | 1,372,600 (1967) |
| Upper Spavinaw Lake | 25-50 | | 1,637 | Yes | No | 35,000 (1967) |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

FORT GIBSON RESERVOIR

1. Reservoir description. - The project area is located on the Grand (Neosho) River about 5 miles north of Fort Gibson, 12 miles northeast of Muskogee and 10.5 miles southeast of Wagoner, Oklahoma. The land within the reservoir area consists of level first bottom land, undulating to rolling valley land, and wooded ravines and mountainous slopes. The steep valley slopes are very stony and usually covered with a growth of timber. Operation of the project will result in a stable pool at elevation 554.0 (top of power pool) except during infrequent periods of relatively short duration. The Government-owned land covers an area of 76,389 acres, most are available for public use.
2. Recreational resources. - Numerous highways, county roads and private roads provide excellent access to the right-bank reservoir area and fair access to the left-bank reservoir area. Access to the general area is served by U. S. Highway Nos. 62 and 69 and Oklahoma State Highway Nos. 16, 80, 33 and 51. The project lies in a region characterized by moderate winters and comparatively long summers. In addition to supporting one of the most important fisheries in the area, there are approximately 21,800 acres of land licensed to the Oklahoma Department of Wildlife Conservation. There are 17,298 acres of land and water managed for public hunting and the remainder for a waterfowl refuge. The area adjacent to the Government-owned land is highly developed and there are numerous motel facilities; in addition, there are guest establishments, several cottages and the Sequoyah State Park Lodge all on project land. There are also two municipal parks, nine quasi-public groups with developed camp sites, 30 private club sites many of which have clubhouses and lodging facilities, and many cottages and homes occupied the entire year, all on project land. In cities with more than 10,000 population within a 100 mile radius of the project, there is an estimated total population of 568,000. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: Fort Supply District: Tulsa

Project Location:

State or States: Oklahoma

County or Counties: Woodward

River or Rivers: Wolf Creek

Major Highway Access Routes: U.S. 270 & 183

Project Purposes: Flood control

Year Impoundment Began: 1943

Pool Size:

Maximum: Acre Feet 101,800

Surface Acres 5,730

Shoreline Miles Not Available

Average Recreation: Surface Acres 1,880

Shoreline Miles 26

Number of Access Areas: 3

Recreation Facilities:

Tent and Trailer Spaces: 50

Day Use Areas (Capacity in Recreation Days) ^{1/} 2,900

Boat Launch Lanes: 8

| | | |
|-------------------------------|------|---------|
| Attendance (Recreation Days): | 1968 | 282,300 |
| | 1967 | 271,700 |
| | 1966 | 317,400 |
| | 1965 | 344,600 |
| | 1964 | 331,200 |

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|-----|------|------|------|------|------|-------|
| | 7.7 | 12.5 | 15.9 | 15.3 | 12.0 | 8.5 | 71.9 |

^{1/} Average weekend day of peak month of use.

FORT SUPPLY

COMPETING WATER-ORIENTED RECREATION AREAS

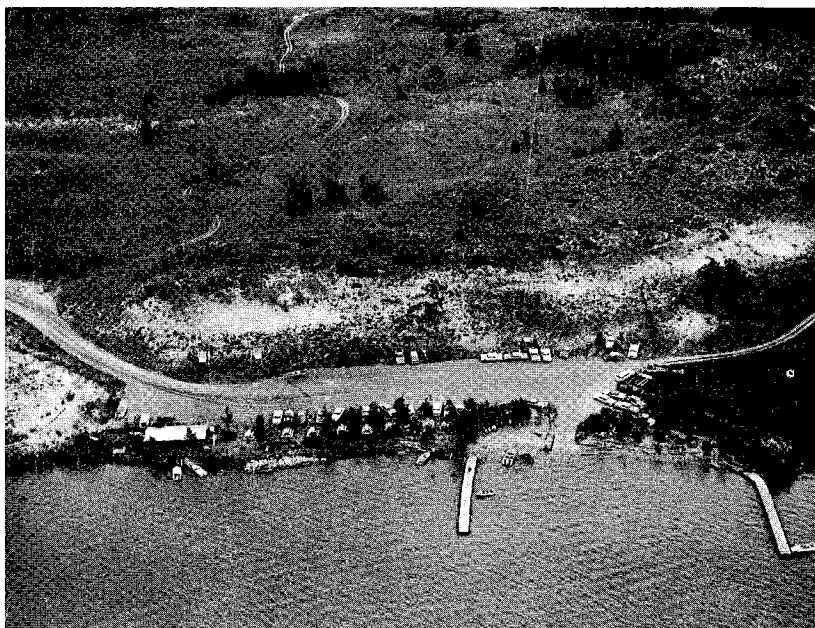
| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ | | RECREATION FACILITIES | | ESTIMATED ANNUAL ATTENDANCE |
|------|--------------------------|-------------------|-------|-----------------------|---------|--------------------------------|
| | | 0-25 | 25-50 | PUBLIC | PRIVATE | |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

FORT SUPPLY RESERVOIR

1. Reservoir description. - The project is located on Wolf Creek, a tributary to the North Canadian River about 2 miles from Fort Supply, and 15 miles northwest of Woodward, Oklahoma. The watershed slopes in the western portion are steep with rough, broken hills which flatten out to a rolling prairie in the central and eastern portion of the basin. Approximately 35 percent of the watershed is covered with wind-blown sand. The project consists of approximately 9,840 acres of land and water, all of which are available for recreation.

2. Recreational resources. - Access to the area is provided by U. S. Highway Nos. 183 and 270. The Fort Supply Reservoir lies in a region lacking in outdoor recreational facilities for the public. The potential recreational resources of the reservoir are fully recognized by individuals living within a wide radius of the project. Numerous petitions by local communities, organizations and individuals requesting a development of these resources and many requests for permits to lease areas on which cottages and cabins could be constructed have been received. The Oklahoma Department of Wildlife Conservation has been granted a license of 5,550 acres of land within the reservoir area. Of this amount, 4,600 acres are reservoir perimeter lands and 950 acres lie downstream from the dam. Their lands are being managed for public hunting. There is an estimated population of 59,000 within a 50 mile radius of the project, 378,000 within 100 miles. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: Great Salt Plains District: Tulsa

Project Location:

State or States: Oklahoma

County or Counties: Alfalfa

River or Rivers: Salt Fork of the Arkansas

Major Highway Access Routes: U.S. 64, State 11

Project Purposes: Flood control

Year Impoundment Began: 1941

Pool Size:

| | |
|--------------------|---------------|
| Maximum: Acre Feet | 280,200 |
| Surface Acres | 28,240 |
| Shoreline Miles | Not Available |

| | |
|-----------------------------------|-------|
| Average Recreation: Surface Acres | 8,890 |
| Shoreline Miles | 41 |

Number of Access Areas: 5

Recreation Facilities:

Tent and Trailer Spaces: 90

Day Use Areas (Capacity in Recreation Days) ^{1/} 5,380

Boat Launch Lanes: 5

| | | |
|-------------------------------|------|---------|
| Attendance (Recreation Days): | 1968 | 599,200 |
| | 1967 | 567,800 |
| | 1966 | 634,200 |
| | 1965 | 708,900 |
| | 1964 | 604,600 |

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|-----|------|------|------|------|------|-------|
| | 8.6 | 16.2 | 17.7 | 19.3 | 12.7 | 6.2 | 80.7 |

^{1/} Average weekend day of peak month of use.

GREAT SALT PLAINS RESERVOIR

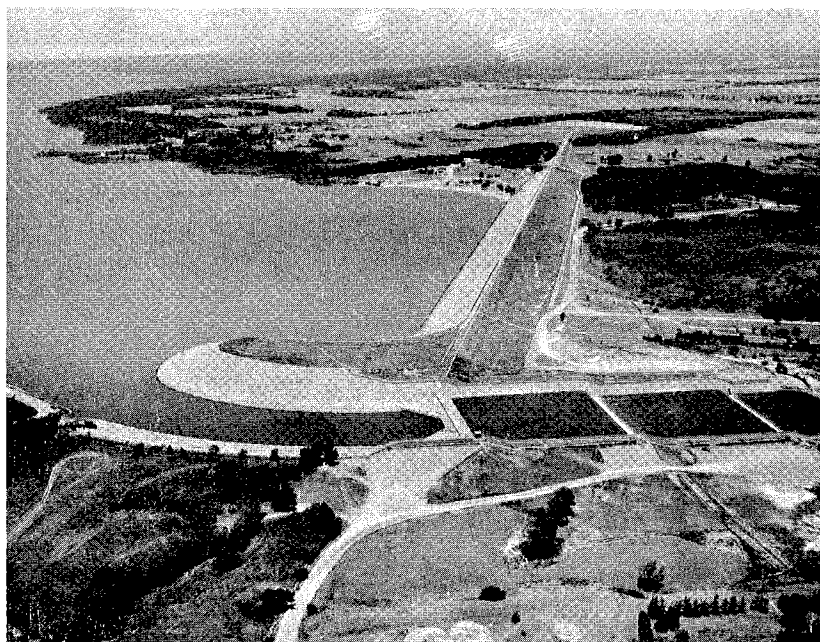
COMPETING WATER-ORIENTED RECREATION AREAS

| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ | | RECREATION FACILITIES | | ESTIMATED ANNUAL ATTENDANCE |
|------------------|--------------------------|-------------------|-------|-----------------------|---------|--------------------------------|
| | | 0-25 | 25-50 | PUBLIC | PRIVATE | |
| Canton Reservoir | 25-50 | | 7,800 | Yes | No | 872,400 (1967) |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

GREAT SALT PLAINS RESERVOIR

1. Reservoir description. - The project is on the Salt Fork of the Arkansas River at an approximate elevation of 1,100 feet. The dam is about 30 miles northwest of Enid, Oklahoma. The surrounding area is generally flat prairie land and only at the damsite are there sufficient variations of topography that favor recreation development. On the south abutment, bluffs descend abruptly to the water and afford excellent views of the project. These bluffs have several deep ravines that form coves that are popular for boating. On the left abutment is a sandy dune-like stretch of shoreline that is particularly conducive to bathing beach development. Government-controlled lands comprise approximately 31,935 acres of which the Corps of Engineers administers 860 acres and the Fish and Wildlife Service administers 31,075 acres as a national wildlife refuge.
2. Recreational resources. - Access to the area is provided by U. S. Highway 64 and Oklahoma State Highway 11. Several all-weather county roads provide access to the reservoir. The reservoir lies in a semi-arid region characterized by moderate winters and comparatively long summers. One of the unfavorable features of the project that affects the fishery resources is the saline nature of the water, however, since impoundment, conditions have favored excellent production of channel catfish and carp. The outstanding recreational feature of the project is the waterfowl hunting on lands adjacent to the Wildlife Refuge; it has proven to be one of the most popular and productive areas in the State. There is also managed public hunting for deer for an eight day season. The principal region to be served by the reservoir contains only one city of more than 10,000 and an estimated total population of 120,000. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: Heyburn

District: Tulsa

Project Location:

State or States: Oklahoma

County or Counties: Creek

River or Rivers: Pole Cat Creek

Major Highway Access Routes: I-44, State 33

Project Purposes: Flood control

Year Impoundment Began: 1950

Pool Size:

| | |
|--------------------|---------------|
| Maximum: Acre Feet | 57,300 |
| Surface Acres | 3,700 |
| Shoreline Miles | Not Available |

| | |
|-----------------------------------|-----|
| Average Recreation: Surface Acres | 980 |
| Shoreline Miles | 40 |

Number of Access Areas: 5

Recreation Facilities:

Tent and Trailer Spaces: 200

Day Use Areas (Capacity in Recreation Days)^{1/} 5,570

Boat Launch Lanes: 6

| | | |
|-------------------------------|------|---------|
| Attendance (Recreation Days): | 1968 | 289,000 |
| | 1967 | 328,300 |
| | 1966 | 343,700 |
| | 1965 | 340,500 |
| | 1964 | 347,600 |

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|-----|-----|------|------|------|------|-------|
| | 5.6 | 9.6 | 17.6 | 17.5 | 13.9 | 10.3 | 74.5 |

^{1/} Average weekend day of peak month of use.

HEYBURN RESERVOIR

COMPETING WATER-ORIENTED RECREATION AREAS

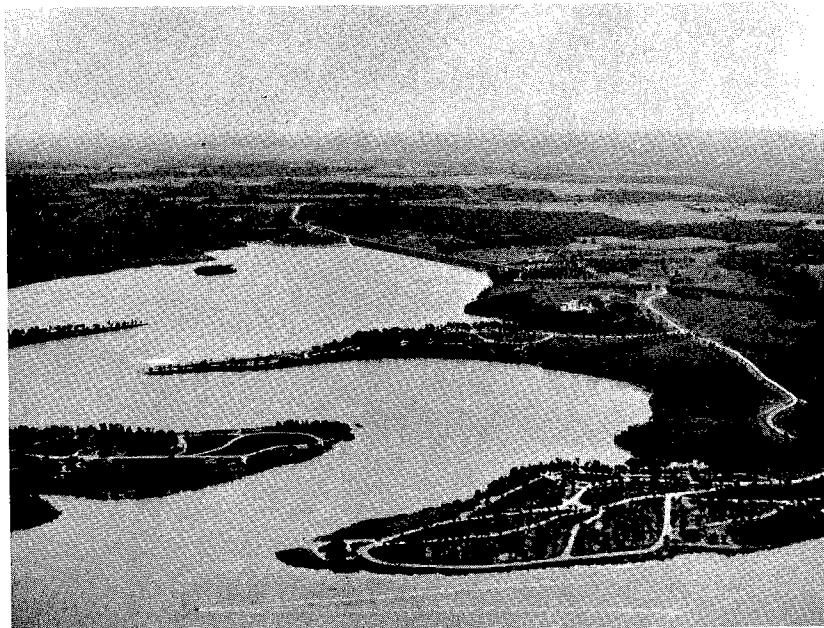
| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ | | RECREATION FACILITIES | | ESTIMATED ANNUAL ATTENDANCE |
|--------------------|--------------------------|-------------------|-------|-----------------------|---------|--------------------------------|
| | | 0-25 | 25-50 | PUBLIC | PRIVATE | |
| Keystone Reservoir | 0-25 | 26,300 | | Yes | Yes | 1,793,600 (1967) |
| Oologah Reservoir | 25-50 | | 5,850 | Yes | No | 1,178,200 (1967) |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

HEYBURN RESERVOIR

1. Reservoir description. - The project is on Polecat Creek about 9 miles northeast of Bristow and 11 miles west of Sapulpa, Oklahoma. Topography of the reservoir area varies from relatively level land in the narrow valley floor to rough, rolling heavily-timbered lands, principally in the flood control pool. There is a total of approximately 7,028 acres of Government-owned land, almost all of which is accessible and available for recreation use.

2. Recreational resources. - Access to the area is provided by Interstate Highway 44 and Oklahoma State Highway 33. There are numerous county roads providing access to the reservoir. The climate of the reservoir area is characterized by moderate winters and comparatively long summers. The project provides many recreational activities, such as boating, waterskiing, fishing, hunting, swimming, picnicking, overnight camping, hiking and other related activities. In the five neighboring counties that make up the major area served by the reservoir, there is an estimated population of 487,000. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: **Hulah**

District: **Tulsa**

Project Location:

State or States: **Oklahoma**

County or Counties: **Washington**

River or Rivers: **Caney**

Major Highway Access Routes: **U.S. 75, State 99 & 10**

Project Purposes: **Flood control**

Year Impoundment Began: **1951**

Pool Size:

Maximum: Acre Feet **292,600**

Surface Acres **13,000**

Shoreline Miles **Not Available**

Average Recreation: Surface Acres **3,600**

Shoreline Miles **62**

Number of Access Areas: **8**

Recreation Facilities:

Tent and Trailer Spaces: **70**

Day Use Areas (Capacity in Recreation Days) ^{1/} **3,170**

Boat Launch Lanes: **10**

| | | |
|-------------------------------|------|---------|
| Attendance (Recreation Days): | 1968 | 498,700 |
| | 1967 | 333,900 |
| | 1966 | 390,100 |
| | 1965 | 539,200 |
| | 1964 | 382,000 |

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|-----|------|------|------|------|------|-------|
| | 9.1 | 12.9 | 14.5 | 15.7 | 12.4 | 8.0 | 72.6 |

^{1/} Average weekend day of peak month of use.

HULAH RESERVOIR

COMPETING WATER-ORIENTED RECREATION AREAS

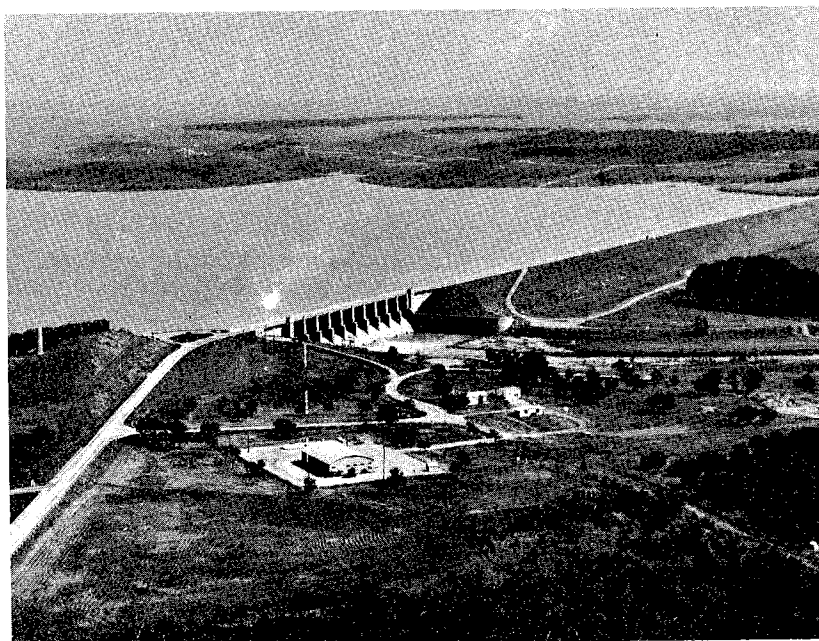
| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ | | RECREATION FACILITIES | | ESTIMATED ANNUAL ATTENDANCE |
|----------------------------------|--------------------------|-------------------|--------|-----------------------|---------|--------------------------------|
| | | 0-25 | 25-50 | PUBLIC | PRIVATE | |
| Elk City Reservoir (Kansas) | 0-25 | 3,550 | | Yes | Yes | 378,400 (1967) |
| Fall River Reservoir (Kansas) | 25-50 | | 2,450 | Yes | Yes | 468,000 (1967) |
| Keystone Reservoir | 25-50 | | 26,300 | Yes | Yes | 1,793,600 (1967) |
| Oologah Reservoir | 25-50 | | 5,850 | Yes | No | 1,178,200 (1967) |
| Toronto Reservoir (Kansas) | 25-50 | | 2,800 | Yes | Yes | 346,600 (1967) |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

HULAH RESERVOIR

1. Reservoir description. - The project is located on the Caney River about 15 miles northwest of Bartlesville, Oklahoma, and 5 miles south of the Kansas-Oklahoma State line. The valley floor in the reservoir is about three-fourths mile wide and hills flanking the valley floor vary from 100 to 250 feet high. Steeper slopes of the valleys are usually covered with extensive groves of oak and hickory trees with many open grass meadows. The reservoir has a sedimentation pool with top elevation at 724.0 and a conservation pool at 731.0, resulting in a possible maximum drawdown of 7 feet. The project area comprises 21,540 acres of land, almost all of which is available for recreational activities.

2. Recreational resources. - Access to the area is provided by U. S. Highway 75 and Oklahoma State Highway Nos. 10 and 99. The major portion of the south side of the reservoir is accessible by means of secondary roads while access to the north side of the lake is very limited. The reservoir lies in a region characterized by moderate winters and comparatively long summers. All types of water-oriented recreation activities are allowed. Several commercial establishments and subdivisions have located near Government property around the main body of the lake. In addition to the fishing activities, the Oklahoma Department of Wildlife Conservation has developed and is managing 3,535 acres of project land for game management purposes and 2,000 acres for a refuge area. The only town in the area of more than 10,000 population is Bartlesville. The nearest metropolitan area is Tulsa County, having an estimated population of 346,038. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: Keystone

District: Tulsa

Project Location:

State or States: Oklahoma

County or Counties: Tulsa, Osage, Creek & Pawnee

River or Rivers: Arkansas

Major Highway Access Routes: U.S. 64, State 99, 48, 51 & 51A

Project Purposes: Flood control, power & navigation

Year Impoundment Began: 1964

Pool Size:

Maximum: Acre Feet 1,879,000

Surface Acres 55,400

Shoreline Miles Not Available

Average Recreation: Surface Acres 26,300

Shoreline Miles 330

Number of Access Areas: 15

Recreation Facilities:

Tent and Trailer Spaces: 52

Day Use Areas (Capacity in Recreation Days) 1/ 20,900

Boat Launch Lanes: 27

| | | |
|-------------------------------|------|-----------|
| Attendance (Recreation Days): | 1968 | 1,737,900 |
| | 1967 | 1,793,600 |
| | 1966 | 2,001,100 |
| | 1965 | 1,582,200 |
| | 1964 | 478,600 |

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|-----|------|------|------|------|------|-------|
| | 8.6 | 12.7 | 14.8 | 16.6 | 13.7 | 8.5 | 74.9 |

1/ Average weekend day of peak month of use.

KEYSTONE RESERVOIR

COMPETING WATER-ORIENTED RECREATION AREAS

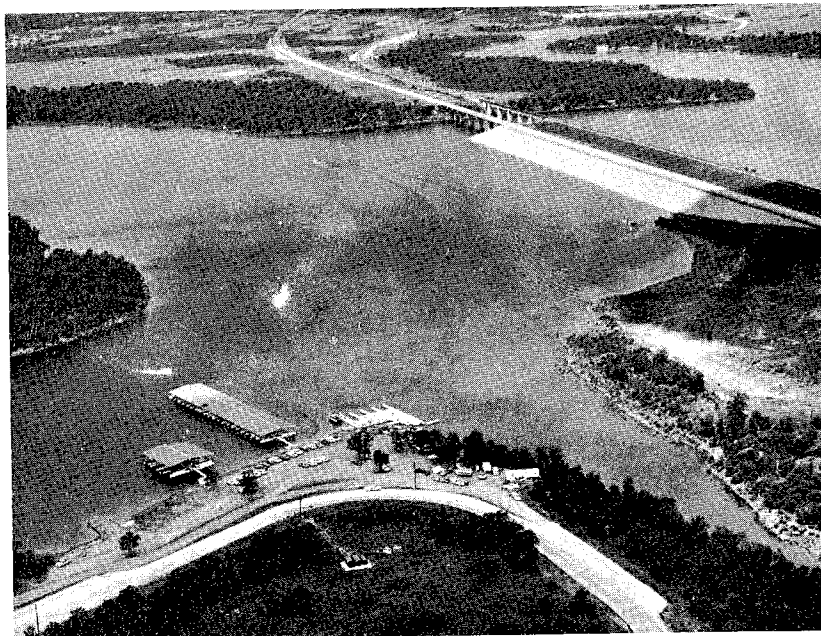
| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ | | RECREATION FACILITIES | | ESTIMATED ANNUAL ATTENDANCE |
|-------------------|--------------------------|-------------------|-------|-----------------------|---------|--------------------------------|
| | | 0-25 | 25-50 | PUBLIC | PRIVATE | |
| Heyburn Reservoir | 0-25 | 980 | | Yes | No | 328,300 (1967) |
| Oologah Reservoir | 25-50 | | 5,850 | Yes | No | 1,178,200 (1967) |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

KEYSTONE RESERVOIR

1. Reservoir description. - The Keystone Damsite is located on the Arkansas River approximately 2 miles downstream from the mouth of the Cimarron River and 14 miles west of Tulsa, Oklahoma. The lake shore varies from steep, rocky bluffs near the dam to the moderate, sandy slopes of the upper reaches of the reservoir. The major portion of the project land is forested with deciduous trees common to eastern Oklahoma. Approximately 24,000 acres of Government-owned land border the 26,300 acre power pool which has approximately 330 miles of shoreline. Most of the shoreline is available for recreational use.

2. Recreational resources. - Access to the area is provided by U. S. Highway 64 and Oklahoma State Highway Nos. 48, 51, 51A, and 99. Numerous private and secondary roads provide direct access to the reservoir from these highways. From early March to November, the temperature permits practically all types of recreation activities. The Oklahoma Department of Wildlife Conservation is carrying out an extensive striped bass and walleye stocking program. Approximately 200,000 striped bass fingerlings and 1,200,000 walleye fry were stocked during 1967. In addition to numerous quasi-public groups and private club developments on project land, there are 72 subdivisions undergoing development adjacent to the project boundaries. There are approximately 1,640,000 persons residing within the 100 mile zone of influence of the reservoir and approximately 534,000 persons within the 50 mile zone. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: Oologah District: Tulsa

Project Location:

State or States: Oklahoma

County or Counties: Nowata & Rodgers

River or Rivers: Verdigris

Major Highway Access Routes: U.S. 60, 66 & 169, State 28 & 88

Project Purposes: Flood control, power & navigation

Year Impoundment Began: 1963

Pool Size:

Maximum: Acre Feet 1,021,000

Surface Acres 43,200

Shoreline Miles Not Available

Average Recreation: Surface Acres 5,850

Shoreline Miles 75

Number of Access Areas: 6

Recreation Facilities:

Tent and Trailer Spaces: 117

Day Use Areas (Capacity in Recreation Days) 1/ 8,700

Boat Launch Lanes: 8

| | | |
|-------------------------------|------|-----------|
| Attendance (Recreation Days): | 1968 | 1,092,600 |
| | 1967 | 1,178,200 |
| | 1966 | 936,900 |
| | 1965 | 1,148,400 |
| | 1964 | 718,800 |

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|------|------|------|------|------|------|-------|
| | 10.5 | 11.9 | 14.2 | 14.5 | 11.0 | 9.0 | 71.1 |

1/ Average weekend day of peak month of use.

OOLOCAH RESERVOIR

COMPETING WATER-ORIENTED RECREATION AREAS

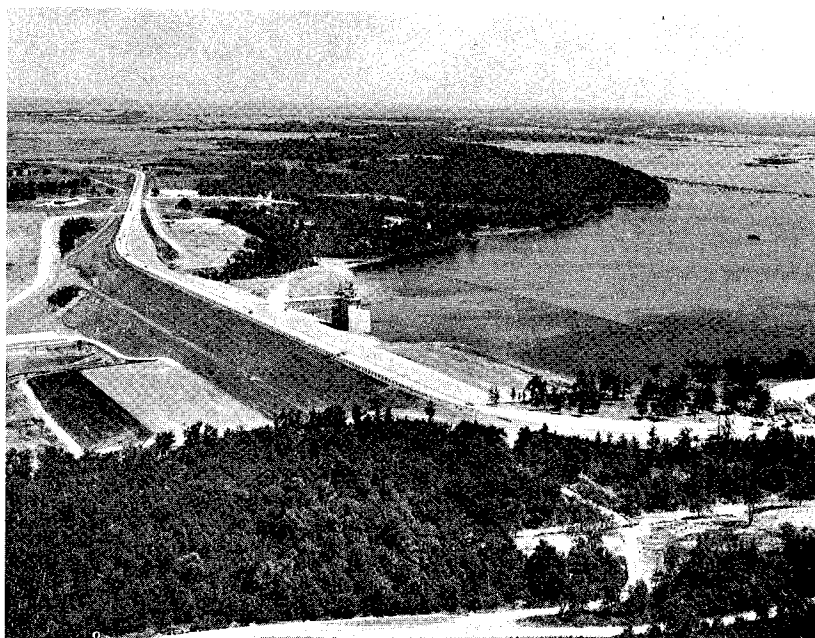
| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ | | | RECREATION FACILITIES | | ESTIMATED ANNUAL ATTENDANCE |
|-----------------------|--------------------------|-------------------|---------------|--|-----------------------|---------|--------------------------------|
| | | 0-25 | 25-50 | | PUBLIC | PRIVATE | |
| Fort Gibson Reservoir | 25-50 | | 19,000 | | Yes | Yes | 2,111,700 (1967) |
| Grand Lake | 25-50 | | Not Available | | Yes | Yes | Not Available |
| Heyburn Reservoir | 25-50 | | 980 | | Yes | Yes | 328,300 (1967) |
| Hulah Reservoir | 25-50 | | 3,600 | | Yes | Yes | 333,900 (1967) |
| Keystone Reservoir | 25-50 | | 26,300 | | Yes | Yes | 1,793,600 (1967) |
| Markham Ferry | 25-50 | | Not Available | | Yes | Yes | Not Available |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

OOLOGAH RESERVOIR

1. Reservoir description. - The project is located on the Verdigris River about 1.5 miles southeast of Oologah and 25 miles northeast of Tulsa, Oklahoma. The reservoir is located in an area that has limited scenic values. The valley is characterized by a pronounced bluff along the west margin from which the plain is an open grassland for many miles. Along the left bank and extending eastward for many miles, the valley has a very broad, gentle slope. The lake will have an ultimate conservation pool with a top elevation of 638.0 and a bottom of 592.0, indicating a possible drawdown of 46 feet. The project has approximately 53,900 acres of land and water, almost all of which are available for public use.

2. Recreational resources. - Access to the area is provided by U. S. Highway Nos. 60, 66, and 169 and Oklahoma Highway Nos. 28 and 88. Numerous existing county roads and relocations will provide direct access to the reservoir. The Verdigris River above the Oologah damsite lies in a region characterized by moderate winters and comparatively long summers. The large areas of shallow water and the extensive, uncleared areas will not encourage speedboating or waterskiing but it is expected that this will attract a heavy use from fishermen. The Oklahoma Department of Wildlife Conservation has licensed 33,000 acres for wildlife management purposes. The zone of visitor influence for the reservoir under the initial development is estimated to be within a 50 mile radius of the project. The visitation zone will be substantially increased to a 150 mile radius when the ultimate conservation pool is impounded. The estimated population within a 50 mile radius is 566,203. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: Tenkiller

District: Tulsa

Project Location:

State or States: Oklahoma

County or Counties: Sequoyah & Cherokee

River or Rivers: Illinois

Major Highway Access Routes: U.S. 62 & 64, State 100, 82 & 10A

Project Purposes: Flood control & power

Year Impoundment Began: 1952

Pool Size:

Maximum: Acre Feet 1,230,000

Surface Acres 20,800

Shoreline Miles Not Available

Average Recreation: Surface Acres 12,500

Shoreline Miles 130

Number of Access Areas: 18

Recreation Facilities:

Tent and Trailer Spaces: 997

Day Use Areas (Capacity in Recreation Days) 1/ 13,680

Boat Launch Lanes: 39

| | | |
|-------------------------------|------|-----------|
| Attendance (Recreation Days): | 1968 | 1,465,500 |
| | 1967 | 1,372,600 |
| | 1966 | 1,842,100 |
| | 1965 | 1,781,900 |
| | 1964 | 1,636,200 |

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|-----|------|------|------|------|------|-------|
| | 7.3 | 10.4 | 14.3 | 16.6 | 15.7 | 9.9 | 74.2 |

1/ Average weekend day of peak month of use.

TENKILLER RESERVOIR

COMPETING WATER-ORIENTED RECREATION AREAS

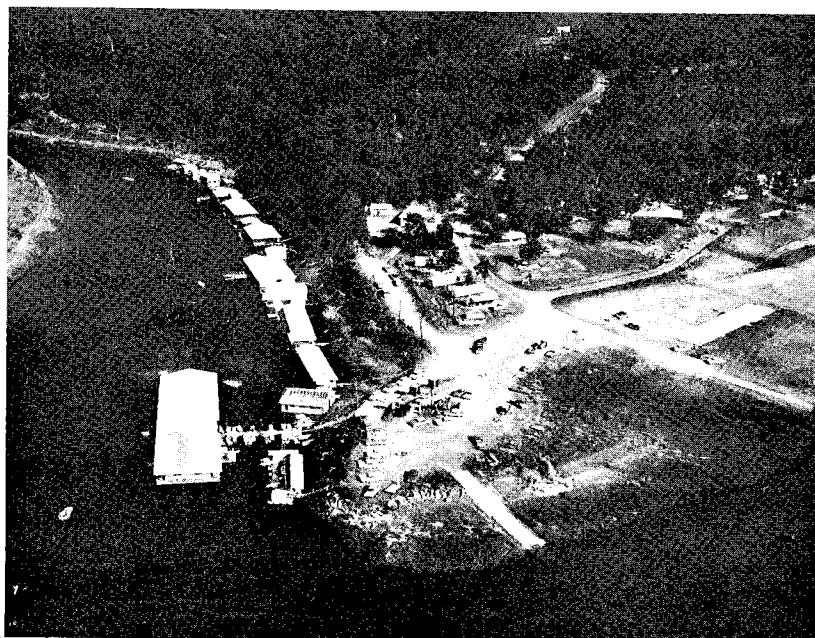
| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ | | RECREATION FACILITIES | | ESTIMATED ANNUAL ATTENDANCE |
|-------------------------|--------------------------|-------------------|---------------|-----------------------|---------|--------------------------------|
| | | 0-25 | 25-50 | PUBLIC | PRIVATE | |
| Eufaula Reservoir | 25-50 | | 102,500 | Yes | Yes | 2,001,800 (1967) |
| Fort Gibson Reservoir | 0-25 | 19,000 | | Yes | Yes | 2,111,700 (1967) |
| Greenleaf State Park | 0-25 | 930 | | Yes | Yes | Not Available |
| Markham Ferry Reservoir | 25-50 | | Not Available | Yes | Yes | Not Available |
| Wister Reservoir | 25-50 | | 4,000 | Yes | Yes | 565,700 (1967) |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

TENKILLER RESERVOIR

1. Reservoir description. - The project is located on the Illinois River about 5 miles northeast of Gore, Oklahoma, 22 miles southeast of Muskogee, Oklahoma, and 40 miles northwest of Ft. Smith, Arkansas. The terrain in the reservoir area is hilly to semi-mountainous, characterized by wooded ravines and at many points by steep rock bluffs. With the exception of a few upland pasture tracts, forest covers most of the area. The forest trees, while not of a commercial value, greatly enhance the scenic value of the reservoir. The Government-owned area above the 12,500 acre lake is 18,278 acres, making a total area of 30,778 acres available for recreation.

2. Recreational resources. - Access to the area is provided principally by U. S. Highway Nos. 62 and 64 and Oklahoma State Highway Nos. 82, 100, and 10A. County roads branch off at many points along the principal highways to provide excellent access into all reaches of the lake. The climate of the reservoir area is characterized by moderate winters and comparatively long summers. The reservoir supports one of the most popular and important fisheries from the standpoint of angler use in the state. In addition to the many cottage and home sites on land adjacent to the project, there are five quasi-public groups with organized camp facilities, five private clubs, and three cottage sites on project land. There are also six guest establishments with rental units on project land. The total estimated population within a 100 mile radius is 1,250,000, the largest percentage being urban. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: Toronto

District: Tulsa

Project Location:

State or States: Kansas

County or Counties: Greenwood & Woodson

River or Rivers: Verdigris

Major Highway Access Routes: State 105, 96 & 99

Project Purposes: Flood control

Year Impoundment Began: 1960

Pool Size:

Maximum: Acre Feet 195,300

Surface Acres 10,000

Shoreline Miles Not Available

Average Recreation: Surface Acres 2,800

Shoreline Miles 51

Number of Access Areas: 5

Recreation Facilities:

Tent and Trailer Spaces: 50

Day Use Areas (Capacity in Recreation Days) 1/ 3,800

Boat Launch Lanes: 6

| | | |
|-------------------------------|------|---------|
| Attendance (Recreation Days): | 1968 | 332,000 |
| | 1967 | 346,600 |
| | 1966 | 280,900 |
| | 1965 | 326,900 |
| | 1964 | 362,100 |

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|-----|------|------|------|------|------|-------|
| | 7.4 | 10.7 | 14.7 | 20.0 | 12.6 | 12.2 | 77.6 |

1/ Average weekend day of peak month of use.

TORONTO RESERVOIR

COMPETING WATER-ORIENTED RECREATION AREAS

| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ | | RECREATION FACILITIES | | ESTIMATED ANNUAL ATTENDANCE |
|---------------------------|--------------------------|-------------------|-------|-----------------------|---------|--------------------------------|
| | | 0-25 | 25-50 | PUBLIC | PRIVATE | |
| Elk City Reservoir | 25-50 | | 3,550 | Yes | Yes | 378,400 |
| Fall River Reservoir | 0-25 | 2,450 | | Yes | Yes | 468,000 |
| John Redmond Reservoir | 25-50 | | 7,780 | Yes | Yes | 570,400 |
| Wilson County State Park | 0-25 | Not Available | | Yes | No | Not Available |
| Woodson County State Park | 0-25 | Not Available | | Yes | No | Not Available |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

TORONTO RESERVOIR

1. Reservoir description. - The project is located on the Verdigris River about 4 miles south of Toronto, Kansas. The Verdigris River Valley is composed of a deep cut river with flat bottom lands that are moderately wooded along the stream and its tributaries. The valley margins are gently rolling hills, except at the dam where there are distinct bluffs on the east side with exposed rock ledges. The lake has a possible fluctuation of 34.0 feet between the bottom of the conservation pool at elevation 897.0 and the top of the flood control pool at elevation 931.0. The project comprises approximately 8,623 acres of land and water, all available for recreation.

2. Recreational resources. - Access to the area is provided by Kansas State Highways 96 and 99. Direct access to the reservoir is provided by State Highway 105 and numerous county roads. The project supports one of the areas most important and popular fisheries from the standpoint of angler use. The Kansas State Park and Resources Authority has been granted a lease to 1,860 acres of land for park purposes. The Kansas Forestry, Fish and Game Commission is managing approximately 4,366 acres of land for wildlife management purposes. The management area is open for public hunting. Visitors to the project come principally from the large population centers of Wichita, Independence, Emporia, and Topeka. The smaller towns and rural population within a 25 mile radius contribute to the day use of the reservoir. A photo representative of the project is shown below.



PERTINENT DATA

Project Name: Wister

District: Tulsa

Project Location:

State or States: Oklahoma

County or Counties: LeFlore

River or Rivers: Poteau

Major Highway Access Routes: U.S. 271, 270 & 59

Project Purposes: Flood control

Year Impoundment Began: 1949

Pool Size:

Maximum: Acre Feet 430,000

Surface Acres 23,000

Shoreline Miles Not Available

Average Recreation: Surface Acres 4,000

Shoreline Miles 115

Number of Access Areas: 6

Recreation Facilities:

Tent and Trailer Spaces: 90

Day Use Areas (Capacity in Recreation Days) 1/ 2,850

Boat Launch Lanes: 8

| | | |
|-------------------------------|------|---------|
| Attendance (Recreation Days): | 1968 | 687,200 |
| | 1967 | 565,700 |
| | 1966 | 613,100 |
| | 1965 | 484,600 |
| | 1964 | 490,900 |

Percent Annual Attendance During Peak Months of Use:

| Mar | Apr | May | June | July | Aug | Sept | Total |
|-----|-----|------|------|------|------|------|-------|
| | 8.6 | 11.9 | 12.4 | 11.0 | 11.5 | 9.9 | 65.3 |

1/ Average weekend day of peak month of use.

COMPETING WATER-ORIENTED RECREATION AREAS

| NAME | DISTANCE ZONE (miles) | SIZE OR LENGTH 1/ | | RECREATION FACILITIES | | ESTIMATED ANNUAL ATTENDANCE |
|---------------------------|--------------------------|-------------------|---------|-----------------------|---------|--------------------------------|
| | | 0-25 | 25-50 | PUBLIC | PRIVATE | |
| Eufaula Reservoir | 25-50 | | 102,500 | Yes | Yes | 2,001,800 (1967) |
| Greenleaf State Park | 25-50 | | 930 | Yes | Yes | Not Available |
| Tenkiller Ferry Reservoir | 25-50 | | 12,500 | Yes | Yes | 1,372,600 (1967) |

1/ Data shown for reservoirs represent surface area (acres) of average recreation pool -- data for rivers denotes miles of river within designated distance zone (0-25, 25-50).

WISTER RESERVOIR

1. Reservoir description. - Wister Reservoir is located on the Poteau River about 2 miles south of Wister, Oklahoma, and 47 miles southwest of Fort Smith, Arkansas. The region in which Wister Reservoir area is located is characterized by a basin that is generally mountainous with valley slopes that are steep and rocky. The lake bed varies from flat to rolling bottom lands. Top of the conservation pool is at elevation 471.6 and the top of the flood control pool is at elevation 502.5, resulting in a possible fluctuation of 30.9 feet. The project comprises an area of 39,170 acres of land and water most of which are available for recreation.

2. Recreational resources. - Access to the area is provided by U. S. Highways 59, 270, and 271. Highway 270 crosses the dam. Supplementing the main highways is a fairly complete network of county and local roads. Public use facilities developed by the Corps were turned over to the Oklahoma State Park Department, by lease agreement, for operation, maintenance, and future development. The State Park consists of 3,040 acres. The Oklahoma Department of Wildlife Conservation is developing and managing 17,996 acres of project lands and waters for game management purposes. All types of water-oriented activities are allowed. The principal region served by the reservoir is largely rural and scattered with the towns being small and usually with only a few hundred inhabitants. The estimated population within a 35 mile radius of the project is 138,000. A photo representative of the project is shown below.



**TECHNICAL REPORT No. 2
OCTOBER 1969**

PLAN FORMULATION AND EVALUATION STUDIES RECREATION

**estimating
initial
reservoir
recreation
use**

APPENDIX B

**PER CAPITA
USE RATES**

PER CAPITA USE RATES

List of Projects

| <u>District</u> | <u>Project</u> | <u>Page No.</u> | <u>District</u> | <u>Project</u> | <u>Page No.</u> |
|-----------------|------------------|-----------------|-----------------|-------------------|-----------------|
| Fort Worth | Belton | B-5 | Sacramento | Black Butte | B-63 |
| | Benbrook | B-7 | | Englebright | B-65 |
| | Canyon | B-9 | | Isabella | B-67 |
| | Dam B | B-11 | | New Hogan | B-69 |
| | Garza-Little Elm | B-13 | | Pine Flat | B-71 |
| | Grapevine | B-15 | | Success | B-73 |
| | Hords Creek | B-17 | | Terminus | B-75 |
| | Lavon | B-19 | Savannah | Clark Hill | B-77 |
| | Navarro Mills | B-21 | | Hartwell | B-79 |
| | Proctor | B-23 | Tulsa | Canton | B-81 |
| | San Angelo | B-25 | | Denison | B-83 |
| Little Rock | Whitney | B-27 | | Eufaula | B-85 |
| | Beaver | B-29 | | Fall River | B-87 |
| | Bull Shoals | B-31 | | Fort Gibson | B-89 |
| | Greers Ferry | B-33 | | Fort Supply | B-91 |
| | Norfolk | B-35 | | Great Salt Plains | B-93 |
| Nashville | Table Rock | B-37 | | Heyburn | B-95 |
| | Center Hill | B-39 | | Hulah | B-97 |
| | Cheatham | B-41 | | Keystone | B-99 |
| | Dale Hollow | B-43 | | Oologah | B-101 |
| | Lake Cumberland | B-45 | | Tenkiller | B-103 |
| Portland | Old Hickory | B-47 | | Toronto | B-105 |
| | Cottage Grove | B-49 | | Wister | B-107 |
| | Detroit | B-51 | | | |
| | Dorena | B-53 | | | |
| | Fern Ridge | B-55 | | | |
| | Hills Creek | B-57 | | | |
| | Lookout Point | B-59 | | | |
| | The Dalles | B-61 | | | |

PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1968

DISTRICT: FORT WORTH
PROJECT: BELTON

LEGEND

O SURVEY ESTIMATE

— REGRESSION ESTIMATE

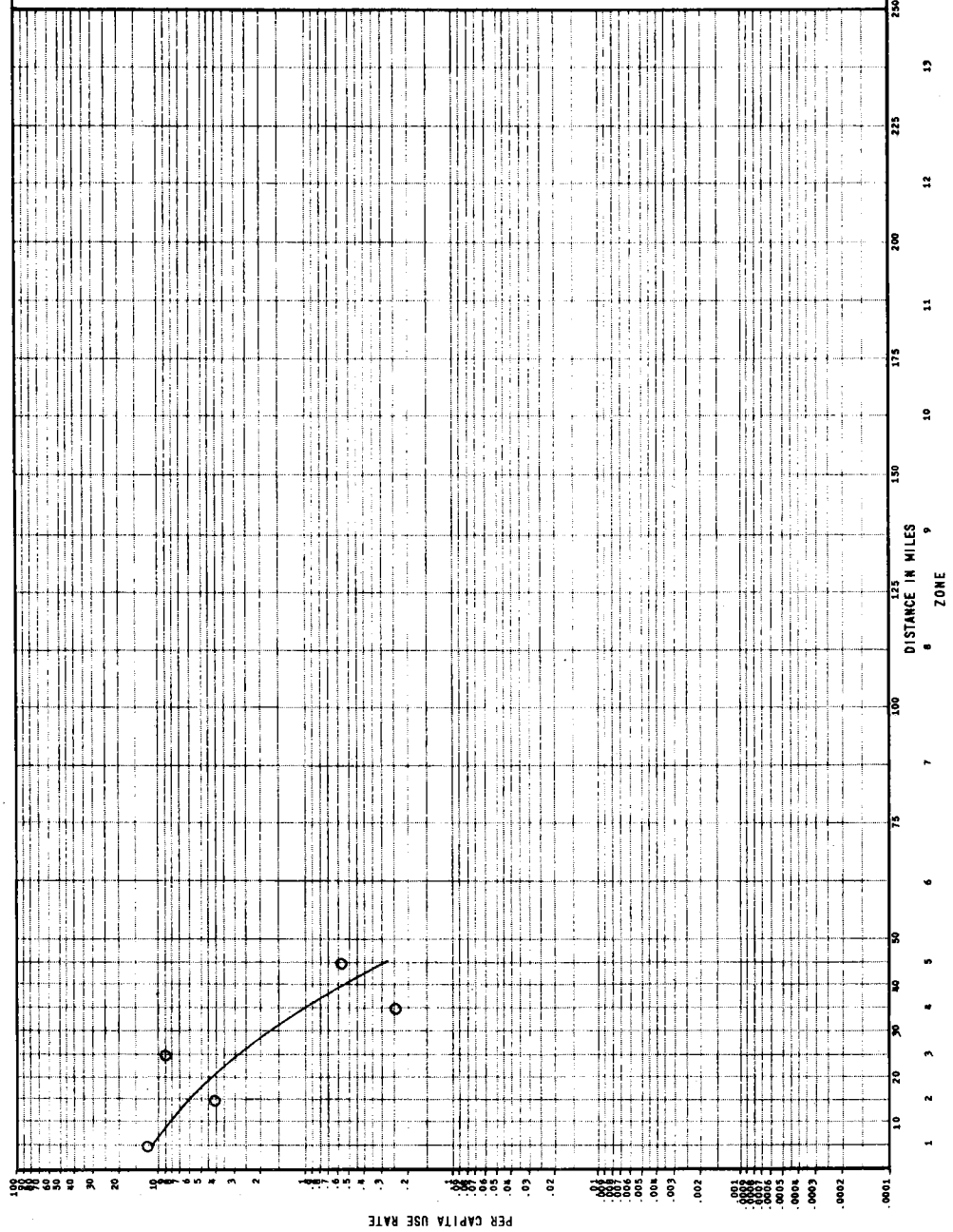
REGRESSION EQUATION:

$$Y = \text{Exp} (2.534405 - .012175 X^{1.5})$$

$$R^2 = .61$$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 13.0042 | 57,700 |
| 2 | 6.2156 | 56,700 |
| 3 | 2.7524 | 52,900 |
| 4 | 1.0134 | 37,750 |
| 5 | .3195 | 179,800 |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/REGRESSION ESTIMATE
2/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1968

DISTRICT: FORT WORTH
PROJECT: BENBROOK

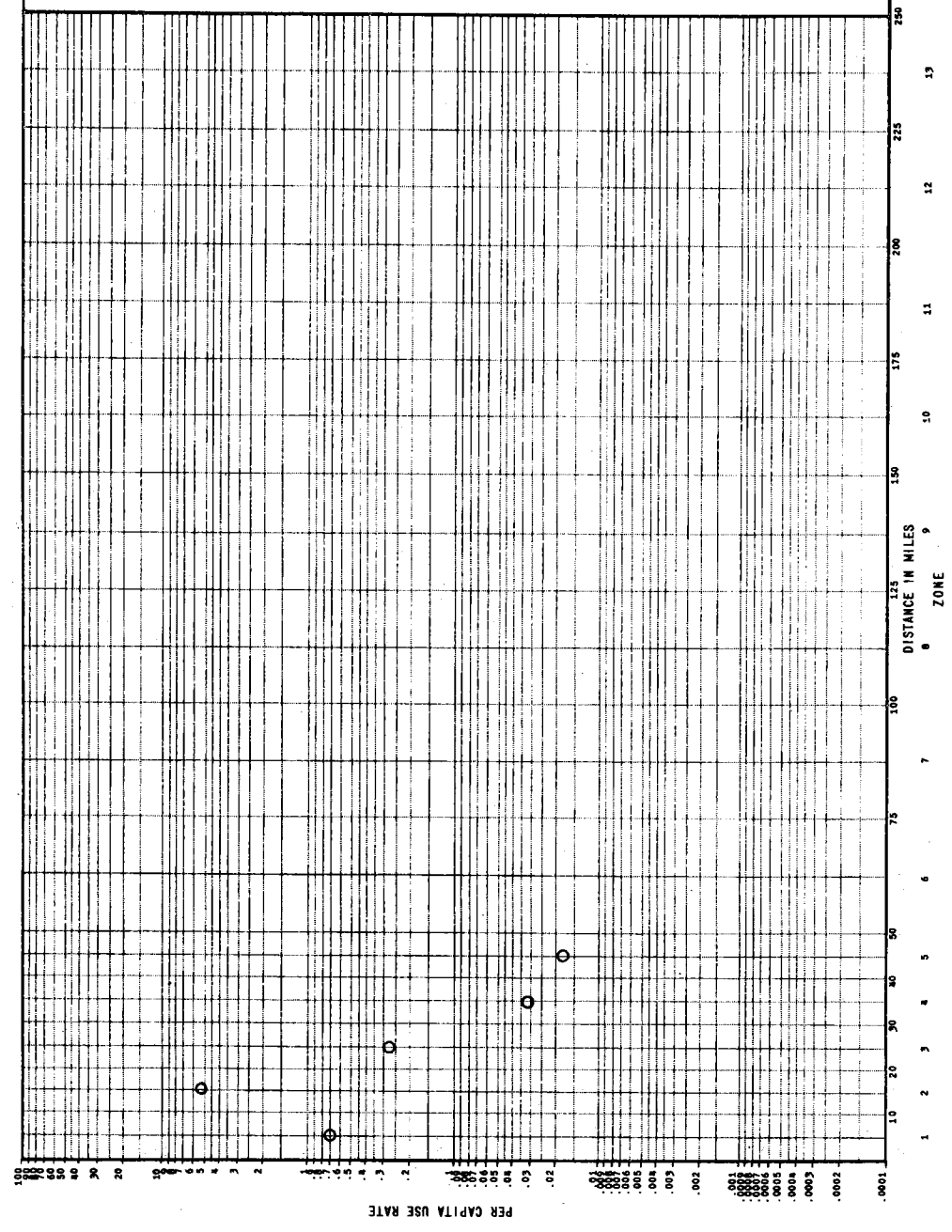
LEGEND

- SURVEY ESTIMATE
 - REGRESSION ESTIMATE
- REGRESSION EQUATION:

R² = .

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | | 75,000 |
| 2 | | 326,500 |
| 3 | | 149,100 |
| 4 | | 263,500 |
| 5 | | 439,300 |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/REGRESSION ESTIMATE
2/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION
 ESTIMATING INITIAL PROJECT
 RECREATION USE

PER CAPITA USE RATES
 1966 - 1968

DISTRICT: FORT WORTH
 PROJECT: CANYON

LEGEND

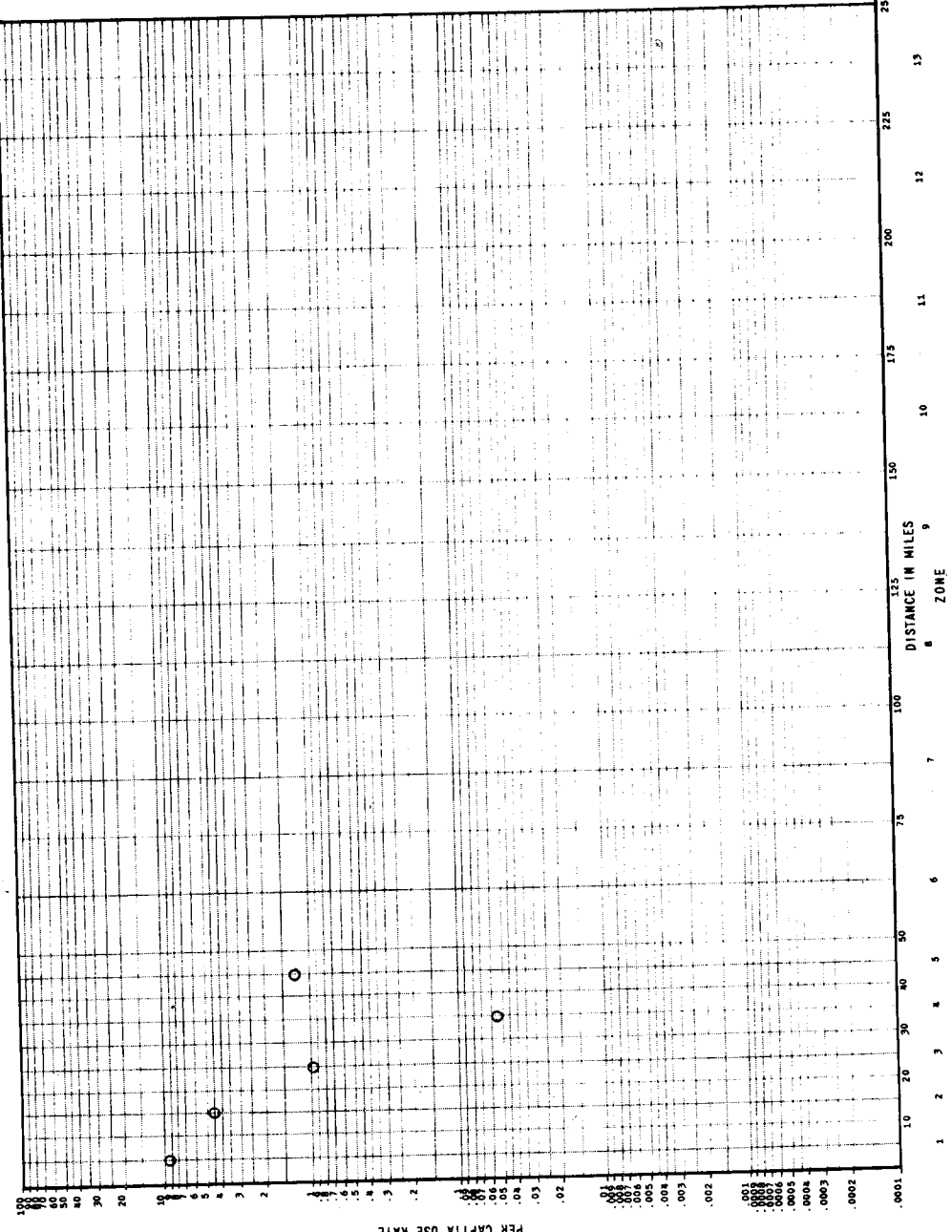
- SURVEY ESTIMATE
- REGRESSION ESTIMATE

REGRESSION EQUATION:

R² = .

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | | 1,400 |
| 2 | | 24,000 |
| 3 | | 42,400 |
| 4 | | 356,700 |
| 5 | | 525,400 |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/REGRESSION ESTIMATE
 2/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT

RECREATION USE

PER CAPITA USE RATES 1966 - 1968

DISTRICT: FORT WORTH
PROJECT: DAM B

LEGEND

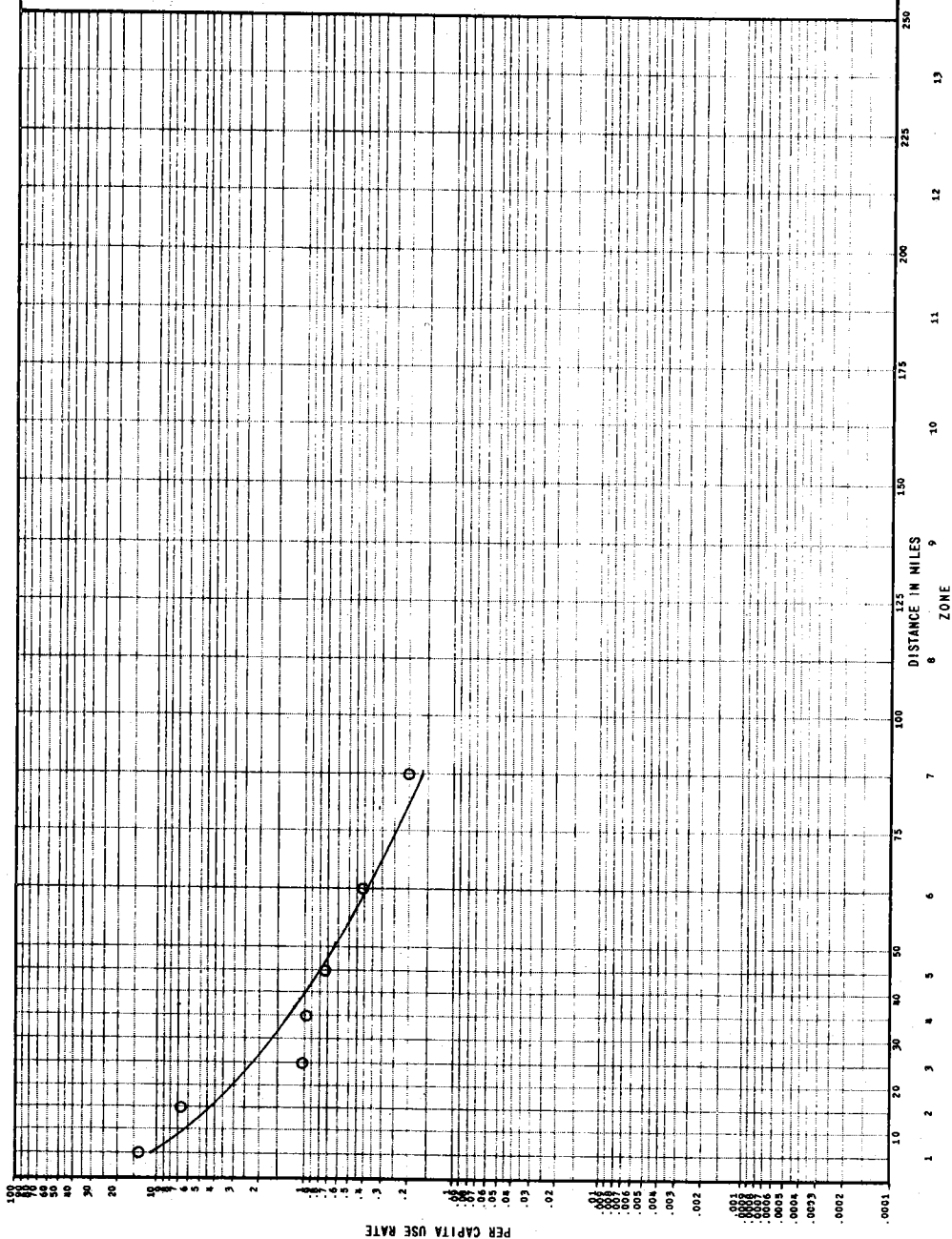
O SURVEY ESTIMATE
— REGRESSION ESTIMATE

REGRESSION EQUATION:
 $Y = \text{Exp}(3.792487 - .602681 X^{.5})$

$R^2 = .92$

| ZONE | PER CAPITA 1/ USE RATE | ZONAL 2/ POPULATION |
|------|---------------------------|------------------------|
| 1 | 11.5238 | 5,300 |
| 2 | 4.2987 | 17,400 |
| 3 | 2.1795 | 13,000 |
| 4 | 1.2548 | 31,800 |
| 5 | .7785 | 27,400 |
| 6 | .3783 | 384,900 |
| 7 | .1580 | 302,300 |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/REGRESSION ESTIMATE
2/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1968

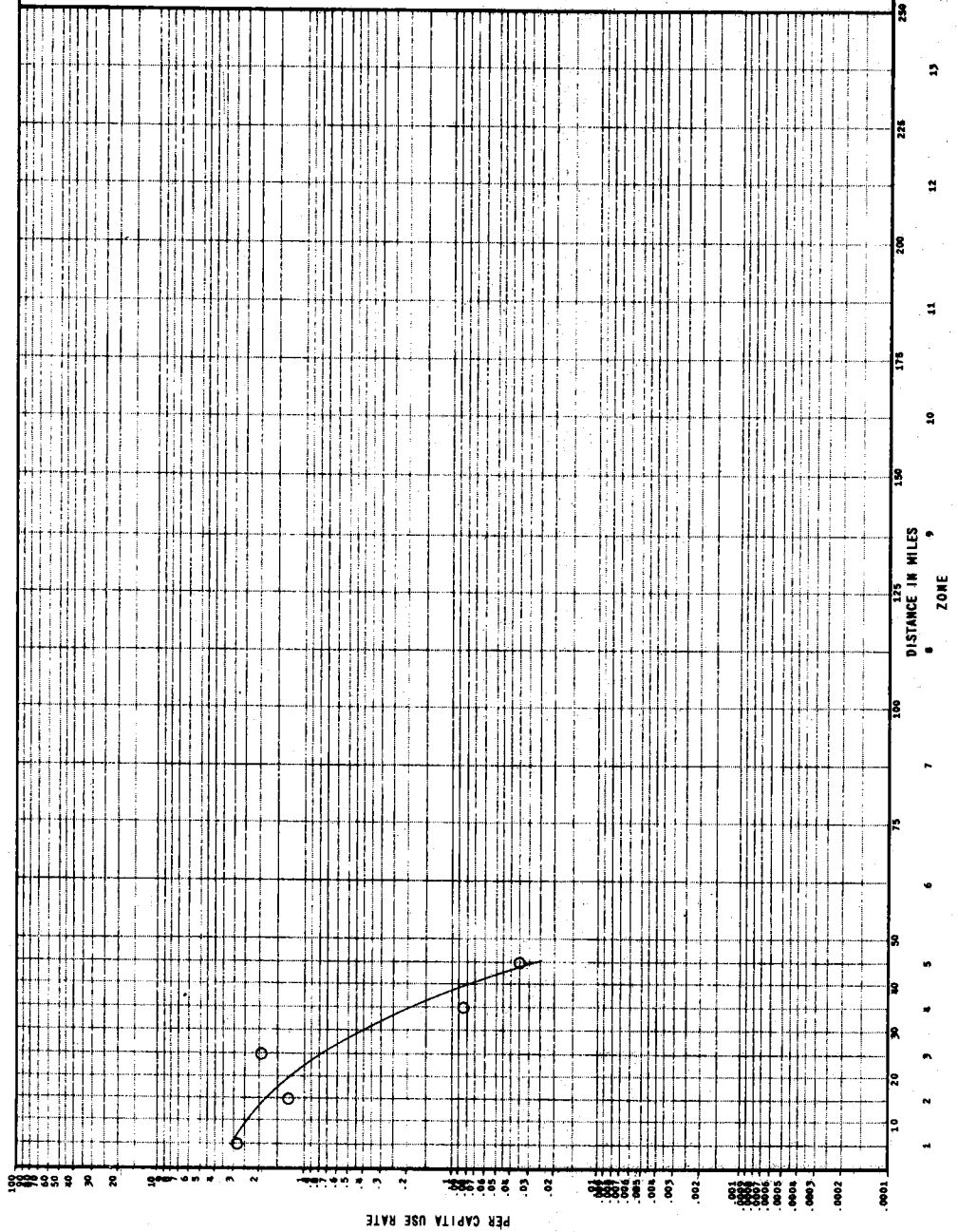
DISTRICT: FORT WORTH
PROJECT: GARZA-LITTLE ELM

LEGEND

SURVEY ESTIMATE
REGRESSION ESTIMATE

REGRESSION EQUATION:
 $Y = \text{Exp}(1.161971 - .002333 \times^2)$
 $R^2 = .71$

| ZONE | PER CAPITA USE RATE | 1/ REGRESSION ESTIMATE | 2/ ESTIMATED 1966 POPULATION |
|------|------------------------|---------------------------|---------------------------------|
| 1 | 3.0150 | | 82,200 |
| 2 | 1.8903 | | 375,900 |
| 3 | .7430 | | 668,700 |
| 4 | .1831 | | 553,200 |
| 5 | .0283 | | 268,600 |
| 6 | | | |
| 7 | | | |
| 8 | | | |
| 9 | | | |
| 10 | | | |
| 11 | | | |
| 12 | | | |
| 13 | | | |



1/REGRESSION ESTIMATE
2/ESTIMATED 1966 POPULATION

PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1968

DISTRICT: FORT WORTH
PROJECT: GRAPEVINE

LEGEND

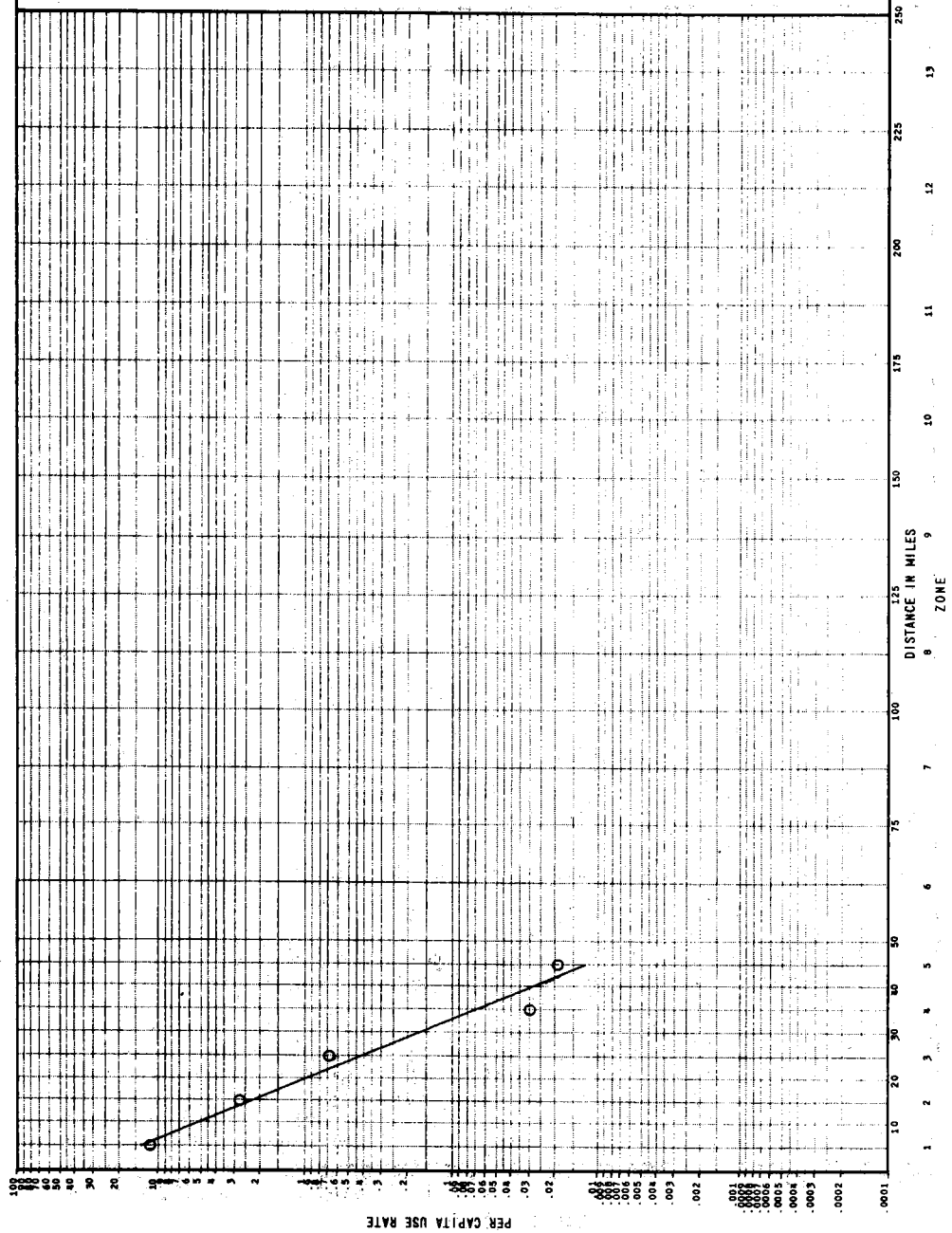
○ SURVEY ESTIMATE
— REGRESSION ESTIMATE

REGRESSION EQUATION:

$Y = \text{Exp}(3.474909 - .173843 X)$
 $R^2 = .97$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 13.5406 | 40,500 |
| 2 | 2.3804 | 323,700 |
| 3 | 4.185 | 1,091,600 |
| 4 | .0736 | 342,100 |
| 5 | .0129 | 99,300 |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/REGRESSION ESTIMATE
2/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT

RECREATION USE

PER CAPITA USE RATES
1966 - 1968

DISTRICT: FORT WORTH

PROJECT: HORDS CREEK

LEGEND

O SURVEY ESTIMATE

— REGRESSION ESTIMATE

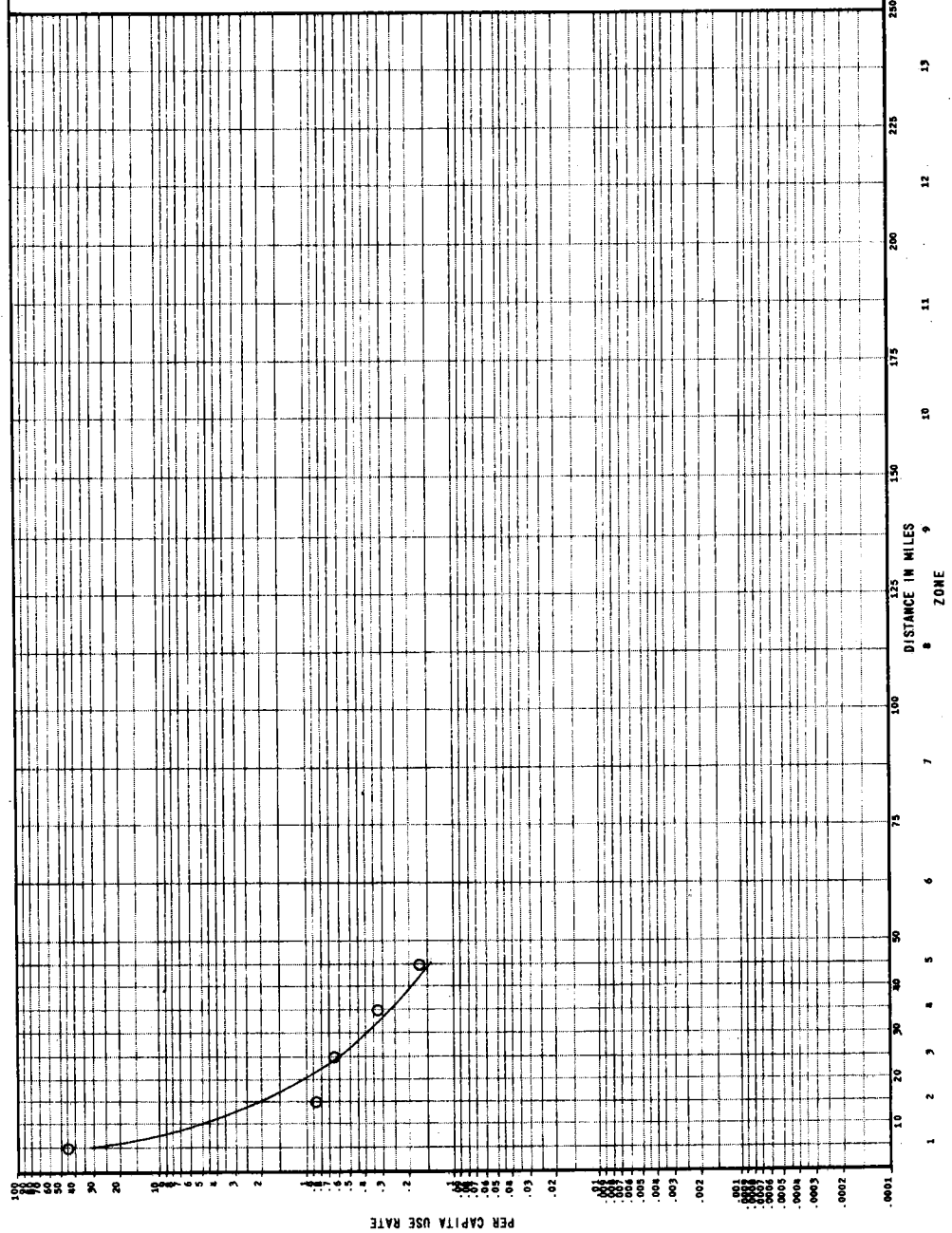
REGRESSION EQUATION:

$$Y = \text{Exp}(7.365309 - 2.442579 \text{ LNX})$$

$$R^2 = .86$$

| ZONE | PER CAPITA 1/ USE RATE | ZONAL 2/ POPULATION |
|------|---------------------------|------------------------|
| 1 | 31.0044 | 1,800 |
| 2 | 2.1184 | 8,700 |
| 3 | .6083 | 14,000 |
| 4 | .2674 | 13,400 |
| 5 | .1447 | 105,100 |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/REGRESSION ESTIMATE
2/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT RECREATION USE

PER CAPITA USE RATES 1966 - 1968

DISTRICT: FORT WORTH
PROJECT: LAVON

LEGEND

- O SURVEY ESTIMATE
- REGRESSION ESTIMATE

REGRESSION EQUATION:

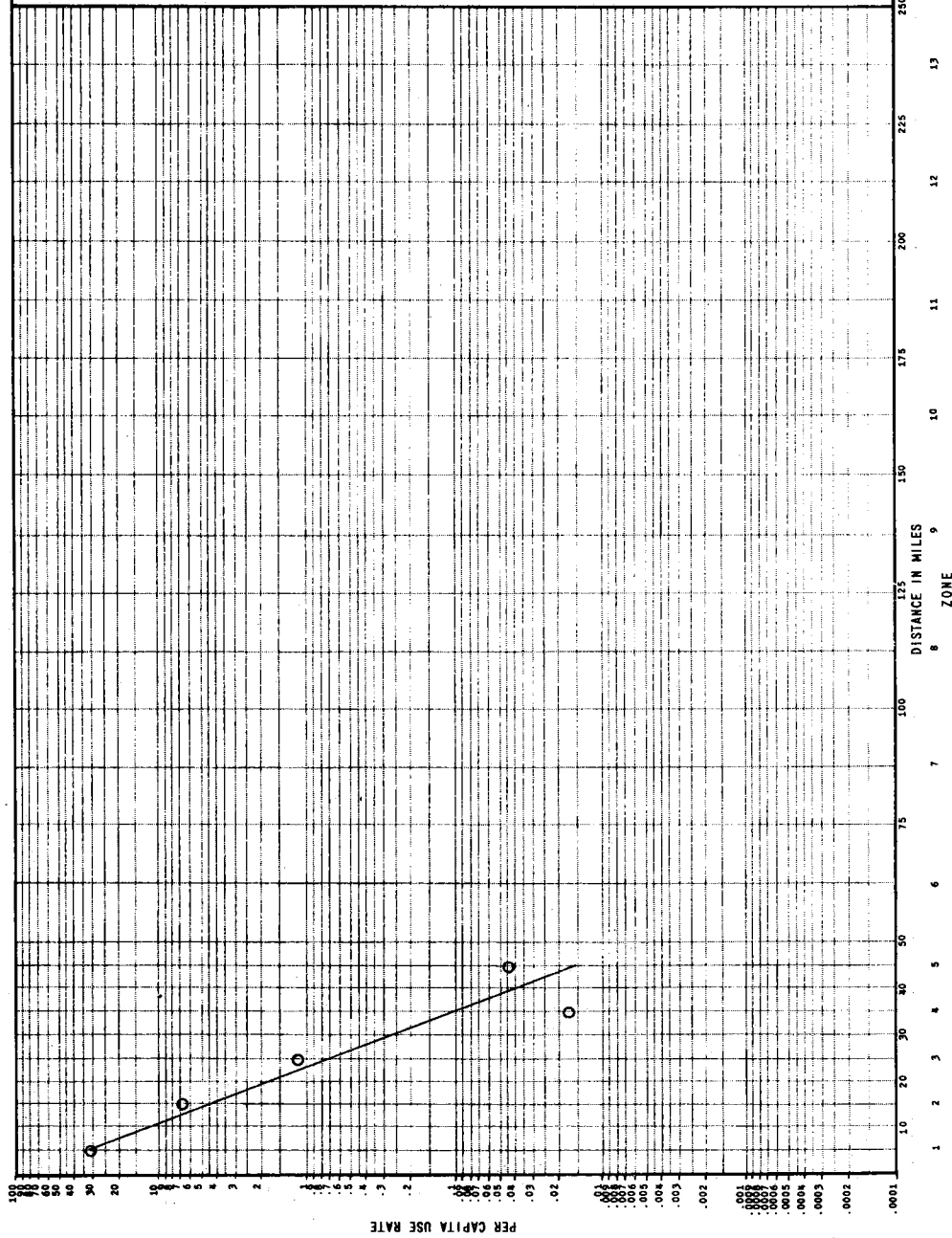
$$Y = \text{Exp}(4.424576 - .190508 X)$$

$$R^2 = .99$$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 32.2021 | 18,100 |
| 2 | 4.7920 | 195,000 |
| 3 | 7.131 | 393,100 |
| 4 | 10.61 | 555,000 |
| 5 | 0.158 | 268,700 |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/ REGRESSION ESTIMATE

2/ ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1968

DISTRICT: FORT WORTH
PROJECT: NAVARRO MILLS

LEGEND

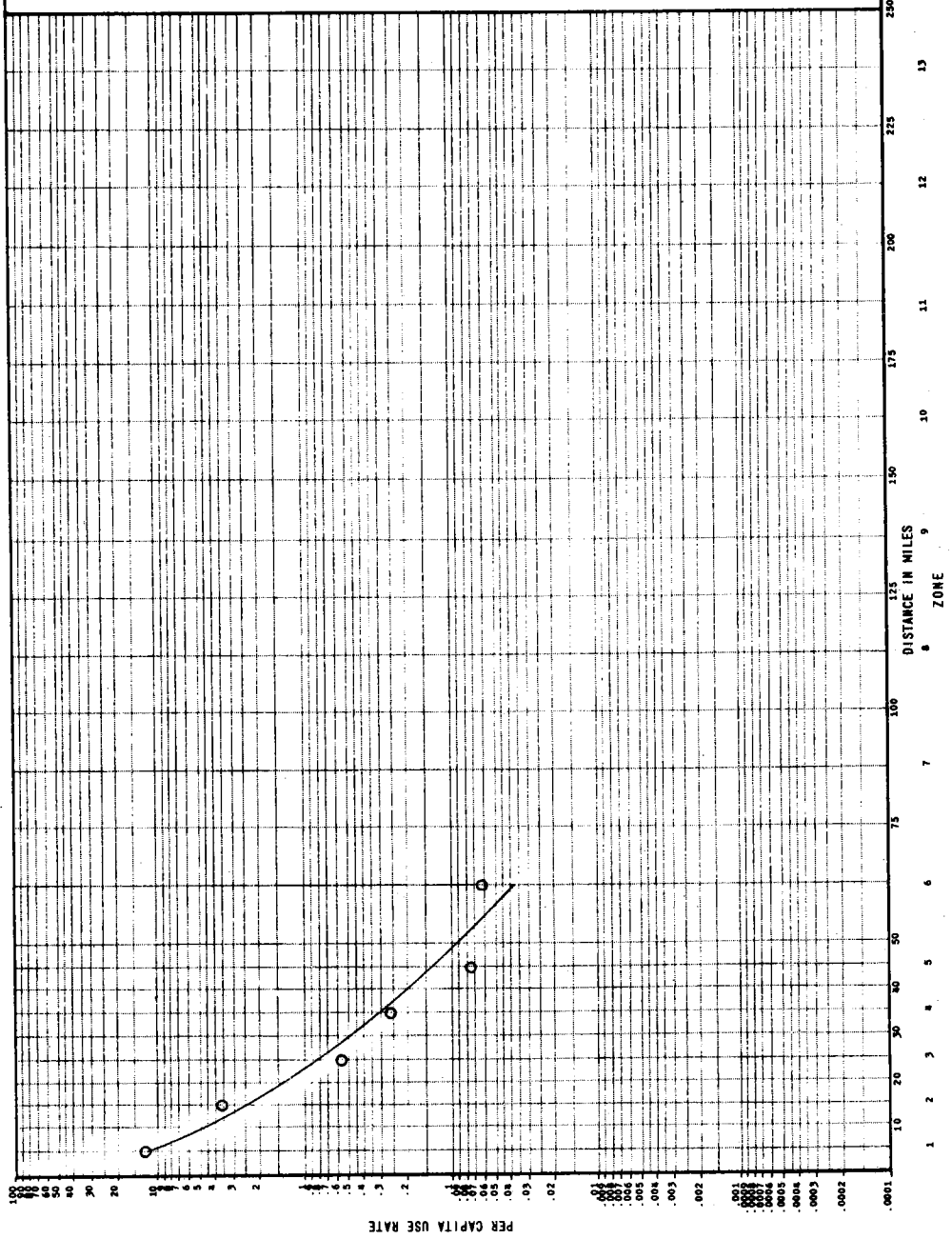
O SURVEY ESTIMATE
— REGRESSION ESTIMATE

REGRESSION EQUATION:
 $Y = \text{Exp}(4.910361 - 1.036830 X^{.5})$

$R^2 = .99$

| ZONE | PER CAPITA 1/ USE RATE | ZONAL 2/ POPULATION |
|------|---------------------------|------------------------|
| 1 | 13.3556 | 5,900 |
| 2 | 2.4467 | 37,800 |
| 3 | .7605 | 33,500 |
| 4 | .2942 | 181,700 |
| 5 | .1294 | 51,300 |
| 6 | .0374 | 1,008,500 |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/ REGRESSION ESTIMATE
2/ ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT RECREATION USE

PER CAPITA USE RATES 1966 - 1968

DISTRICT: FORT WORTH
PROJECT: PROCTOR

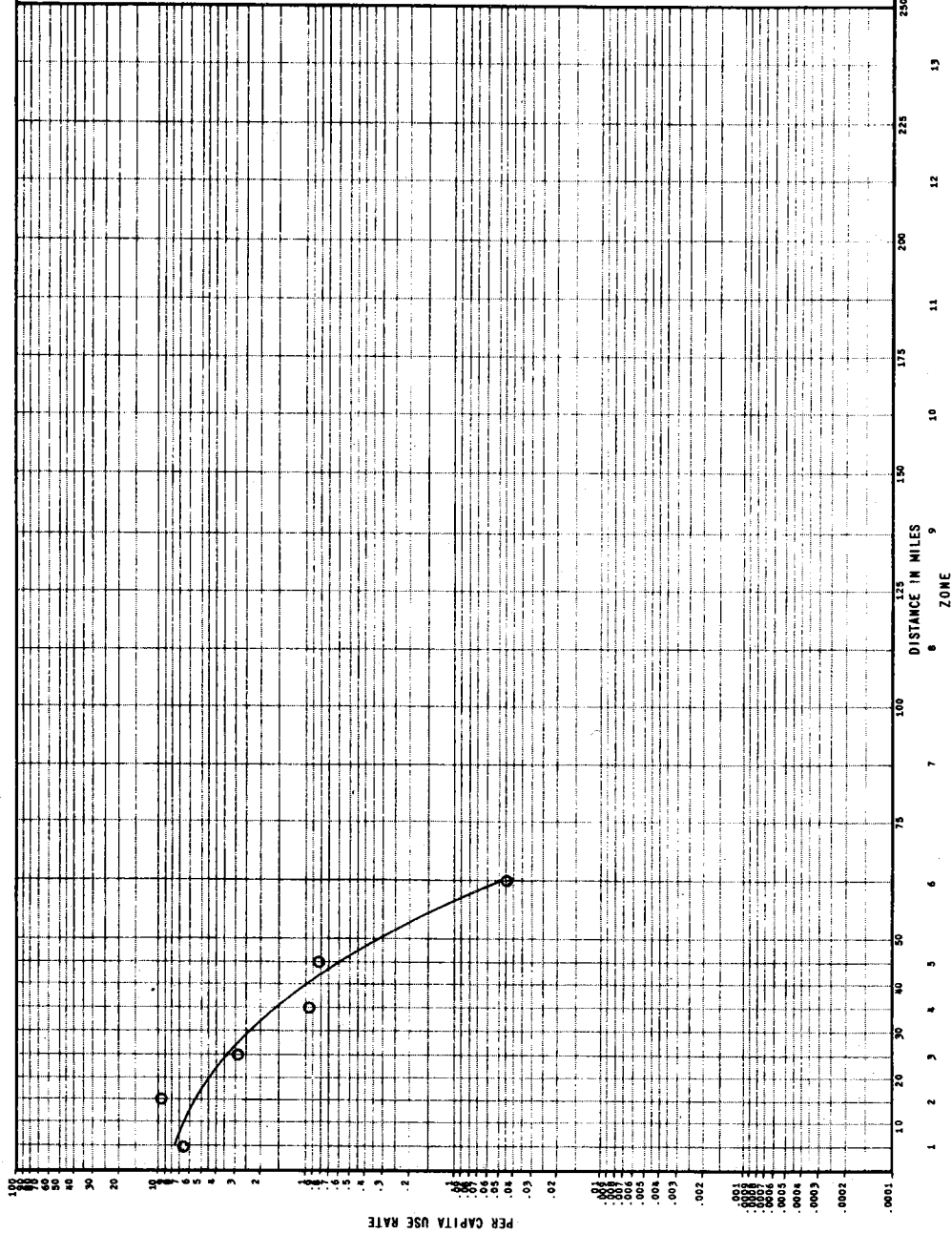
LEGEND

O SURVEY ESTIMATE
— REGRESSION ESTIMATE

REGRESSION EQUATION:
 $Y = \text{Exp}(2.053332 - .001287 X^2)$
 $R^2 = .78$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 7.5468 | 8,900 |
| 2 | 5.8327 | 9,600 |
| 3 | 3.4840 | 2,800 |
| 4 | 1.6084 | 37,800 |
| 5 | .5739 | 22,000 |
| 6 | .0509 | 151,400 |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/ REGRESSION ESTIMATE
2/ ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT RECREATION USE

PER CAPITA USE RATES 1966 - 1968

DISTRICT: FORT WORTH
PROJECT: SAN ANGELO

LEGEND

O SURVEY ESTIMATE
— REGRESSION ESTIMATE

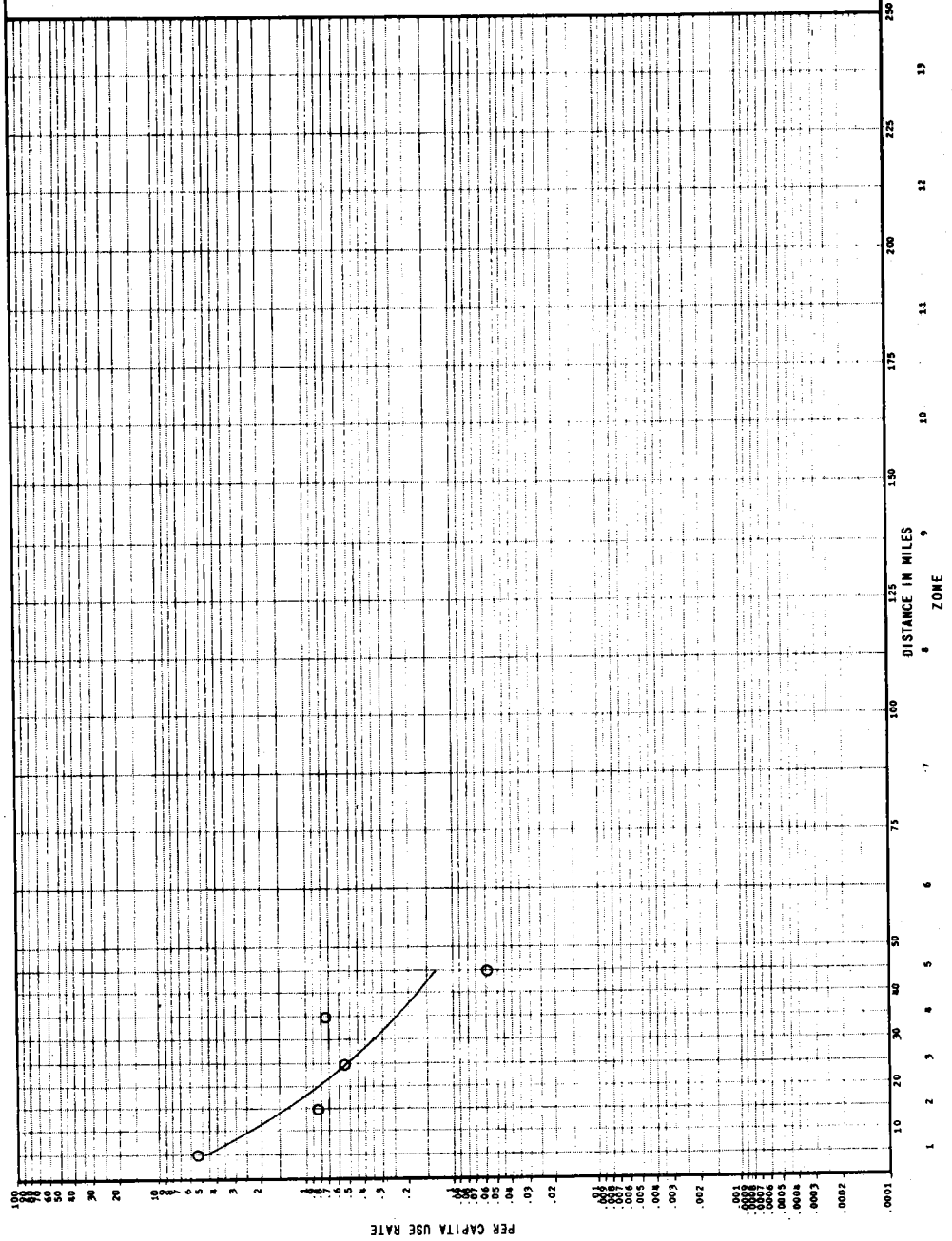
REGRESSION EQUATION:

$$Y = \text{Exp}(3.404686 - .812429 X^{.5})$$

$$R^2 = .97$$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 4.2942 | 65,700 |
| 2 | 1.2945 | 3,400 |
| 3 | .5182 | 3,500 |
| 4 | .2462 | 4,200 |
| 5 | .1293 | 12,100 |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/REGRESSION ESTIMATE
2/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT RECREATION USE

PER CAPITA USE RATES 1966 - 1968

DISTRICT: FORT WORTH
PROJECT: WHITNEY

LEGEND

○ SURVEY ESTIMATE
— REGRESSION ESTIMATE

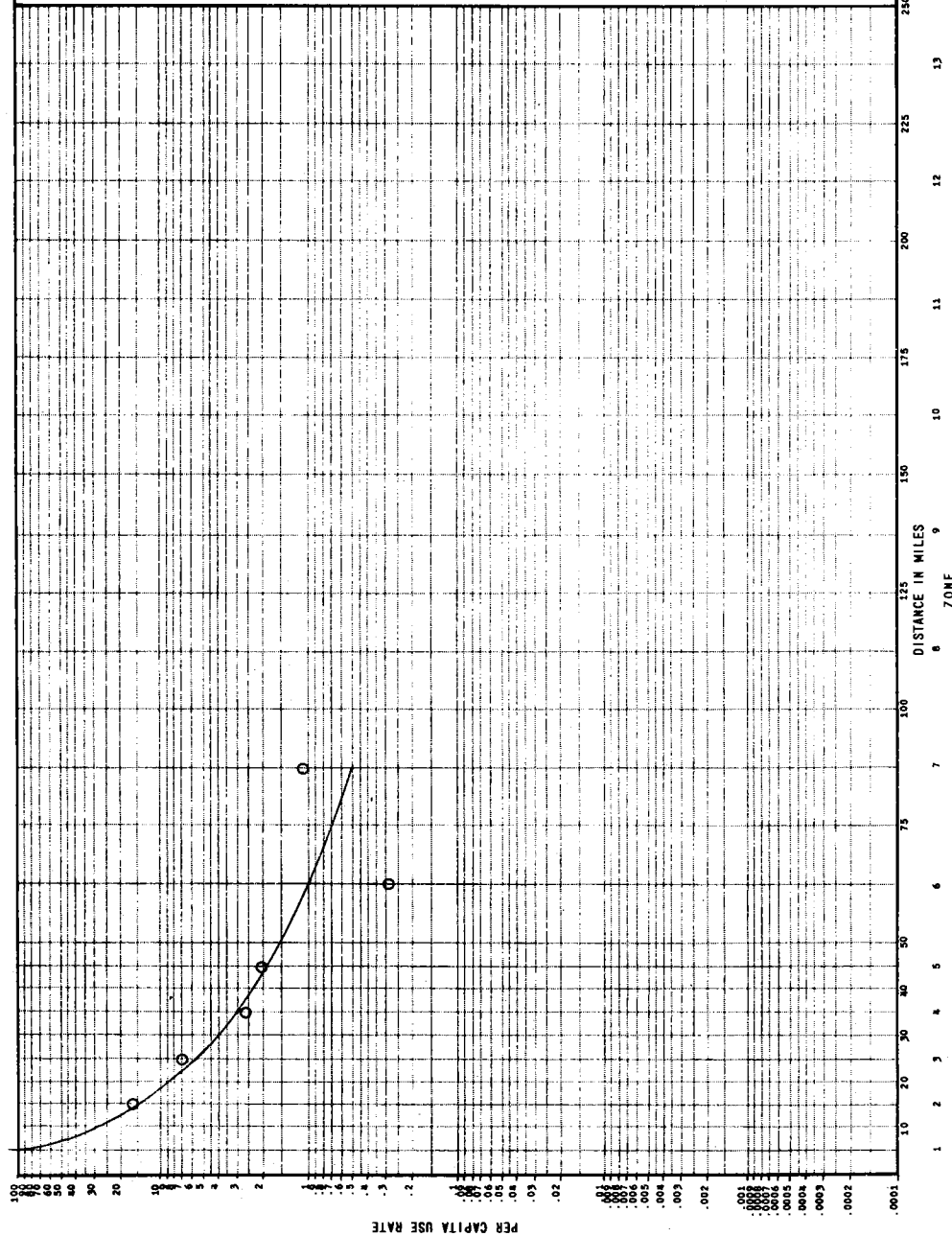
REGRESSION EQUATION:

$$Y = \text{Exp}(7.894216 - 1.918263 \cdot \text{LN} X)$$

$R^2 = .99$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 122.3505 | 3,900 |
| 2 | 14.8717 | 21,100 |
| 3 | 5.5821 | 47,400 |
| 4 | 2.9274 | 154,700 |
| 5 | 1.8077 | 58,700 |
| 6 | .9626 | 1,940,600 |
| 7 | .5048 | 471,800 |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/REGRESSION ESTIMATE
2/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT RECREATION USE

PER CAPITA USE RATES 1966 - 1968

DISTRICT: LITTLE ROCK
PROJECT: BEAVER

LEGEND

○ SURVEY ESTIMATE
— REGRESSION ESTIMATE

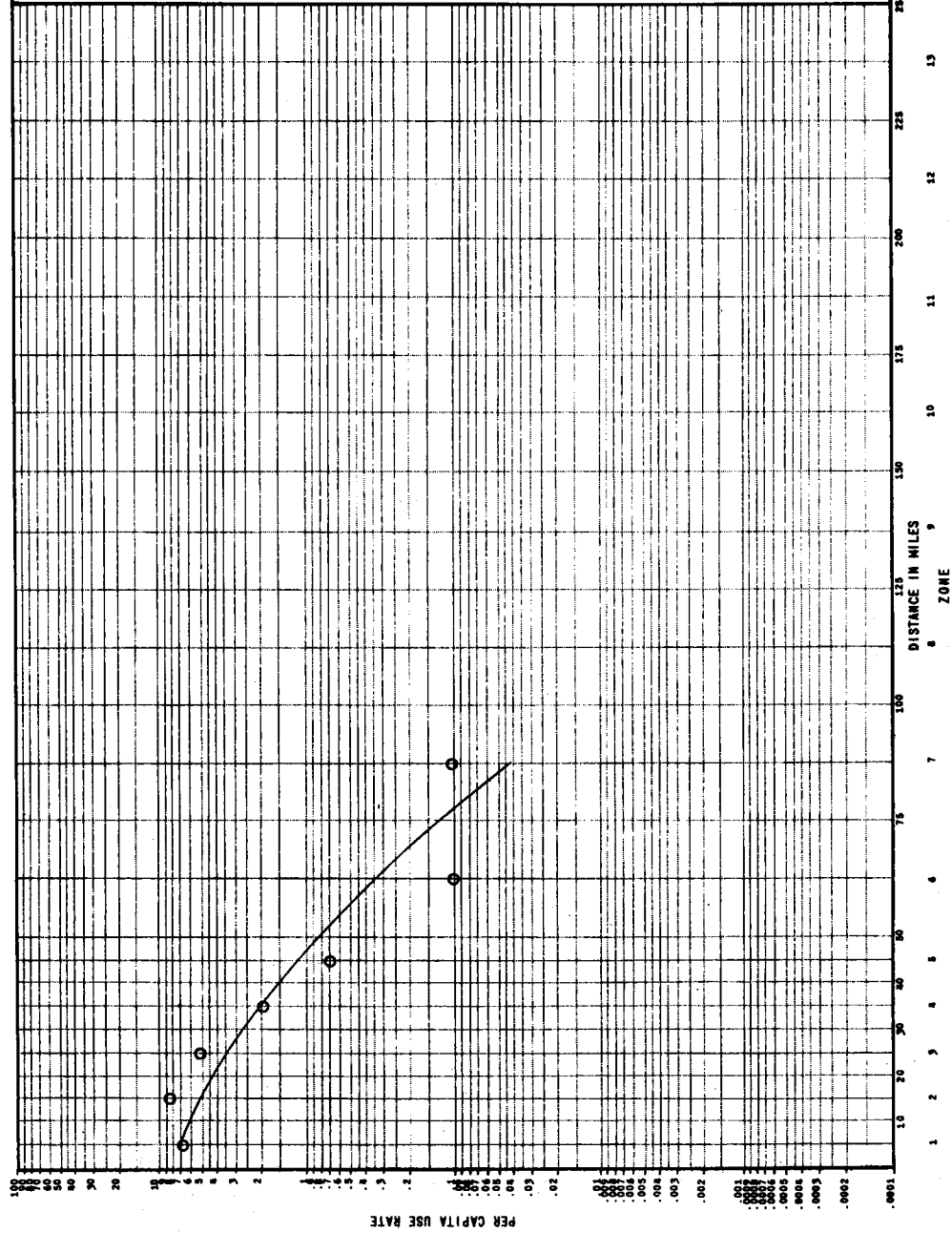
REGRESSION EQUATION:
 $Y = \text{Exp}(2.005586 - .006199 \times 1.5)$

$R^2 = .79$

| ZONE | PER CAPITA 1/ USE RATE | ZONAL 2/ POPULATION |
|------|---------------------------|------------------------|
| 1 | 6.9328 | 72,900 |
| 2 | 5.1830 | 43,700 |
| 3 | 3.4231 | 45,200 |
| 4 | 2.0580 | 34,800 |
| 5 | 1.1432 | 42,000 |
| 6 | .3471 | 210,000 |
| 7 | .0465 | 452,400 |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/REGRESSION ESTIMATE

2/ESTIMATED 1968 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT RECREATION USE

PER CAPITA USE RATES 1966 - 1968

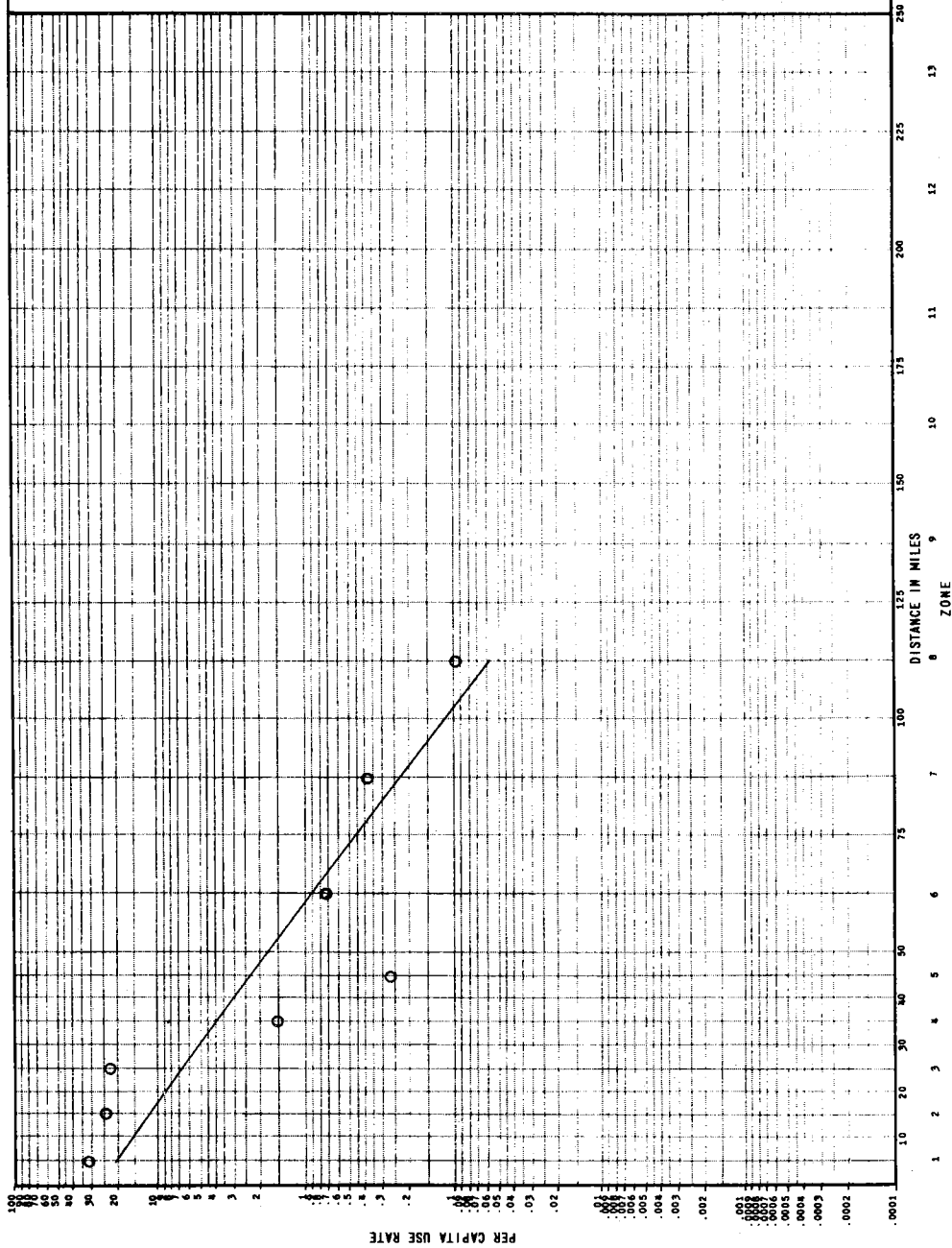
DISTRICT: LITTLE ROCK
PROJECT: BULL SHOALS

LEGEND

O SURVEY ESTIMATE
— REGRESSION ESTIMATE

REGRESSION EQUATION:
 $Y = \text{Exp}(3.304790 - .054506X)$
 $R^2 = .58$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 20.7439 | 17,500 |
| 2 | 12.0273 | 10,500 |
| 3 | 6.9734 | 19,100 |
| 4 | 4.0432 | 76,700 |
| 5 | 2.3442 | 130,500 |
| 6 | .9031 | 194,200 |
| 7 | .2312 | 302,700 |
| 8 | .0592 | 407,800 |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |



— REGRESSION ESTIMATE
Z/ESTIMATED 1965 POPULATION

PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT

RECREATION USE

PER CAPITA USE RATES 1966 - 1968

DISTRICT: LITTLE ROCK
PROJECT: GREERS FERRY

LEGEND

O SURVEY ESTIMATE
— REGRESSION ESTIMATE

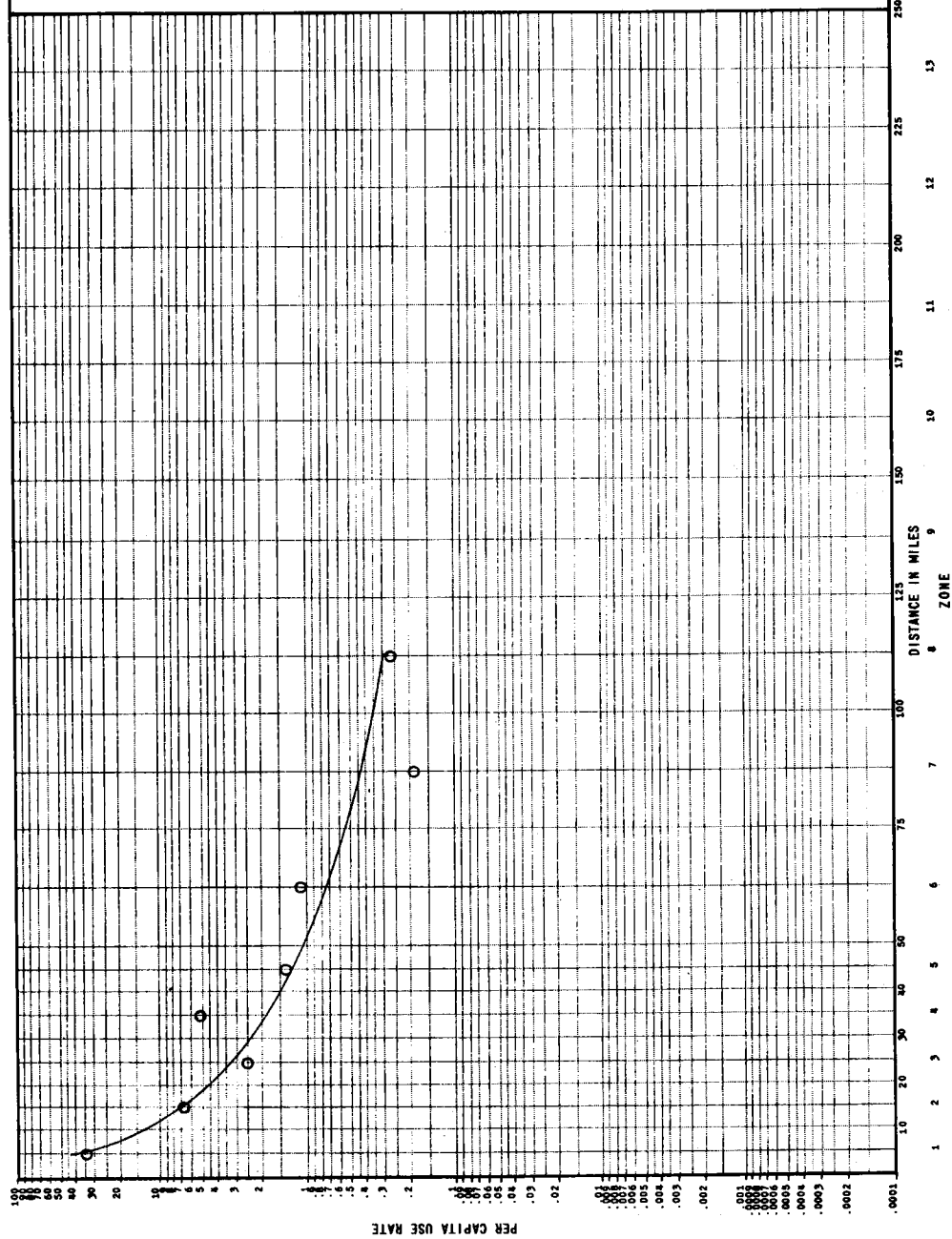
REGRESSION EQUATION:

$$Y = \text{Exp}(6.325834 - 1.599855 \cdot \text{LN} X)$$

$$R^2 = .89$$

| ZONE | PER CAPITA 1/ USE RATE | ZONAL 2/ POPULATION |
|------|---------------------------|------------------------|
| 1 | 42.5622 | 7,900 |
| 2 | 7.3400 | 6,600 |
| 3 | 3.2417 | 18,500 |
| 4 | 1.8923 | 32,400 |
| 5 | 1.2658 | 48,800 |
| 6 | .7484 | 283,900 |
| 7 | .4369 | 338,050 |
| 8 | .2922 | 375,900 |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/REGRESSION ESTIMATE
2/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT RECREATION USE

PER CAPITA USE RATES 1966 - 1968

DISTRICT: LITTLE ROCK
PROJECT: NORFOLK

LEGEND

- O SURVEY ESTIMATE
- REGRESSION ESTIMATE

REGRESSION EQUATION:

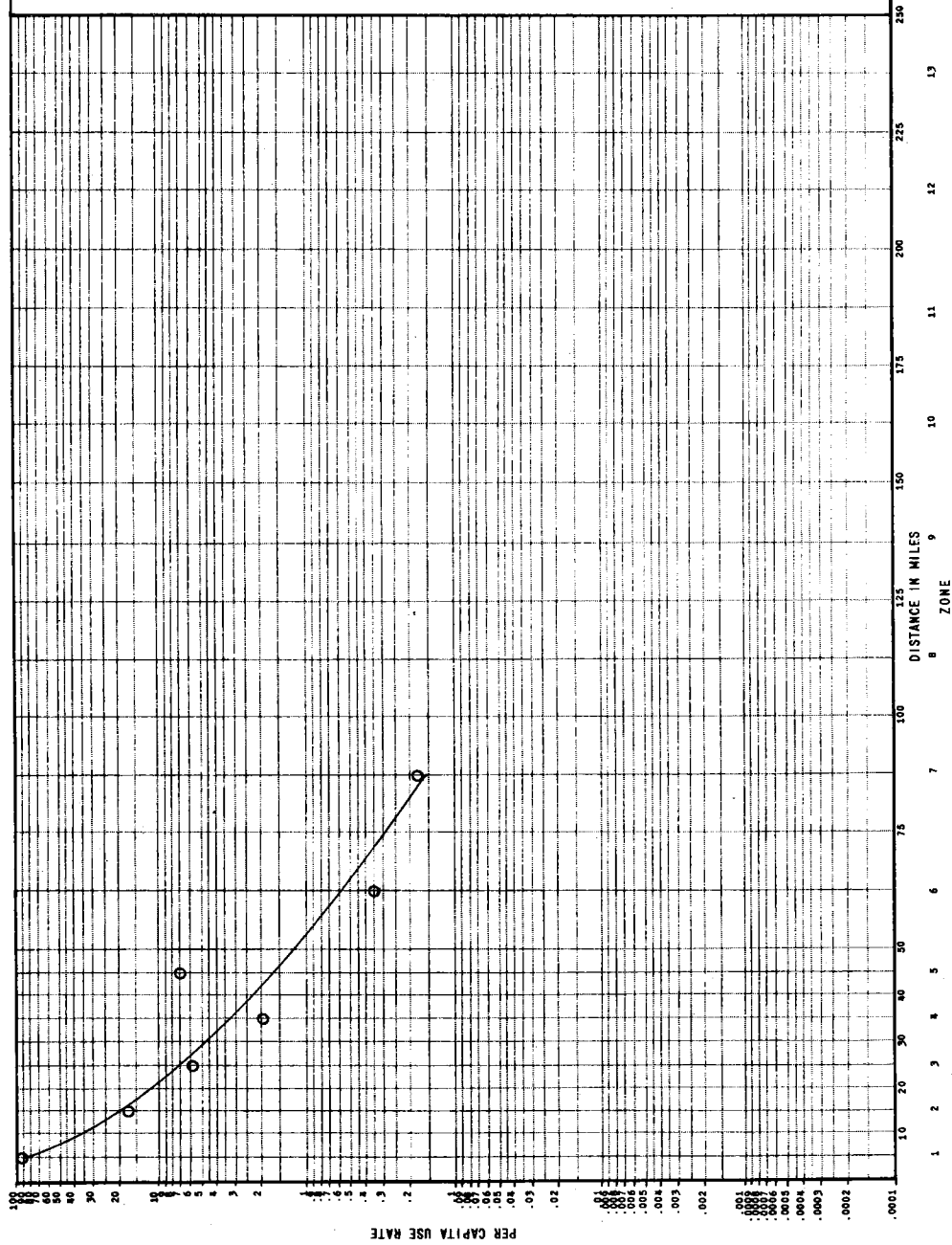
$$Y = \text{Exp}(6.422489 - .886016 \times .5)$$

$$R^2 = .99$$

| ZONE | PER CAPITA 1/ USE RATE | ZONAL 2/ POPULATION |
|------|---------------------------|------------------------|
| 1 | 84.8847 | 7,500 |
| 2 | 19.9048 | 8,700 |
| 3 | 7.3331 | 9,400 |
| 4 | 3.2568 | 15,500 |
| 5 | 1.6143 | 17,600 |
| 6 | .5587 | 91,500 |
| 7 | .1548 | 144,800 |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/ REGRESSION ESTIMATE

2/ ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT RECREATION USE

PER CAPITA USE RATES 1966 - 1968

DISTRICT: LITTLE ROCK
PROJECT: TABLE ROCK

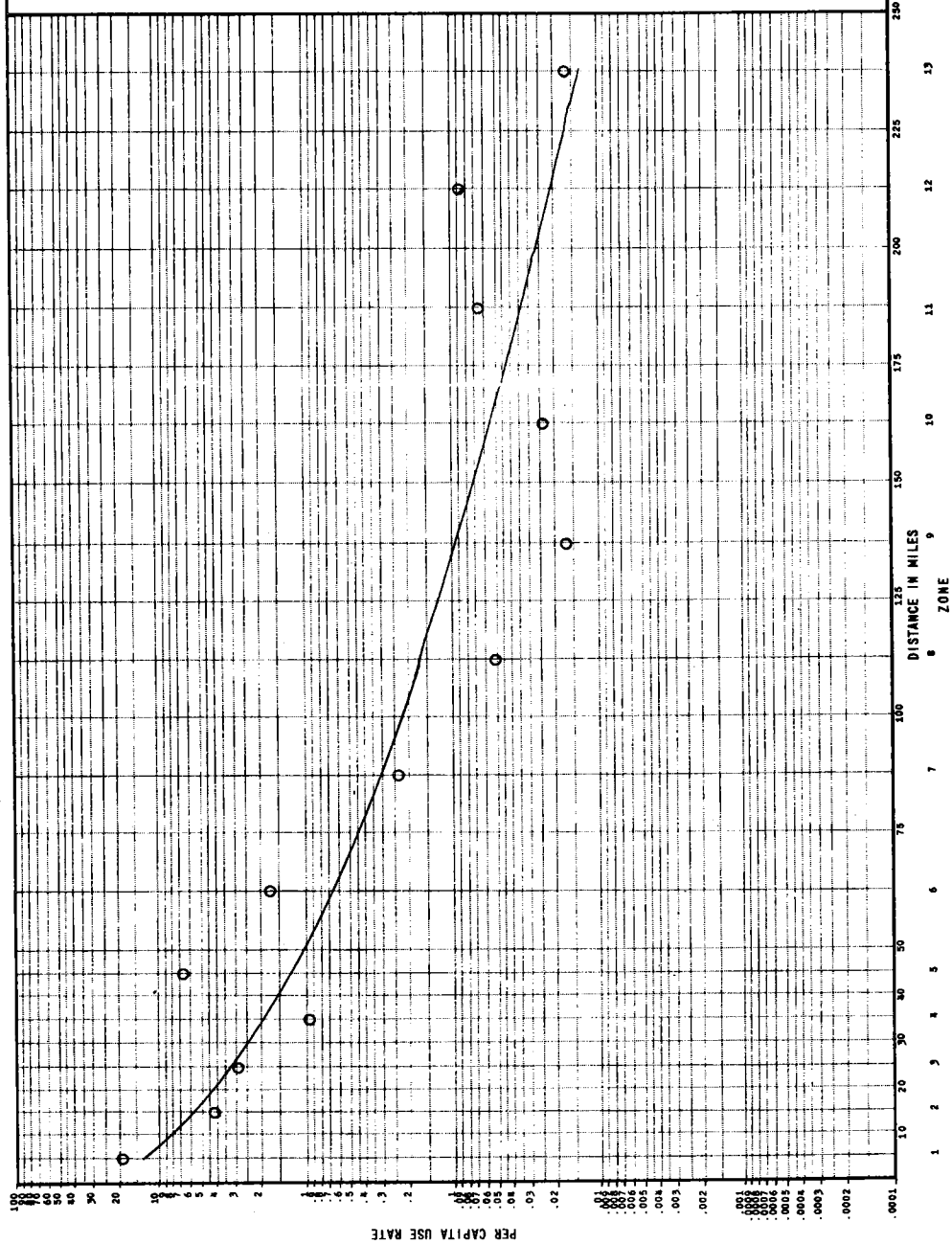
LEGEND

○ SURVEY ESTIMATE
— REGRESSION ESTIMATE

REGRESSION EQUATION:
 $Y = \text{Exp}(3.775787 - .523600 \times .5)$
 $R^2 = .82$

| ZONE | PER CAPITA 1/ USE RATE | ZONAL 2/ POPULATION |
|------|---------------------------|------------------------|
| 1 | 13.5310 | 14,900 |
| 2 | 5.7425 | 24,900 |
| 3 | 3.1829 | 57,400 |
| 4 | 1.9702 | 149,900 |
| 5 | 1.3013 | 90,000 |
| 6 | .6951 | 268,900 |
| 7 | .3256 | 298,300 |
| 8 | .1690 | 411,900 |
| 9 | .0940 | 947,900 |
| 10 | .0551 | 745,500 |
| 11 | .0336 | 1,025,800 |
| 12 | .0211 | 2,396,500 |
| 13 | .0137 | 2,767,700 |

1/ REGRESSION ESTIMATE
2/ ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION
ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1968

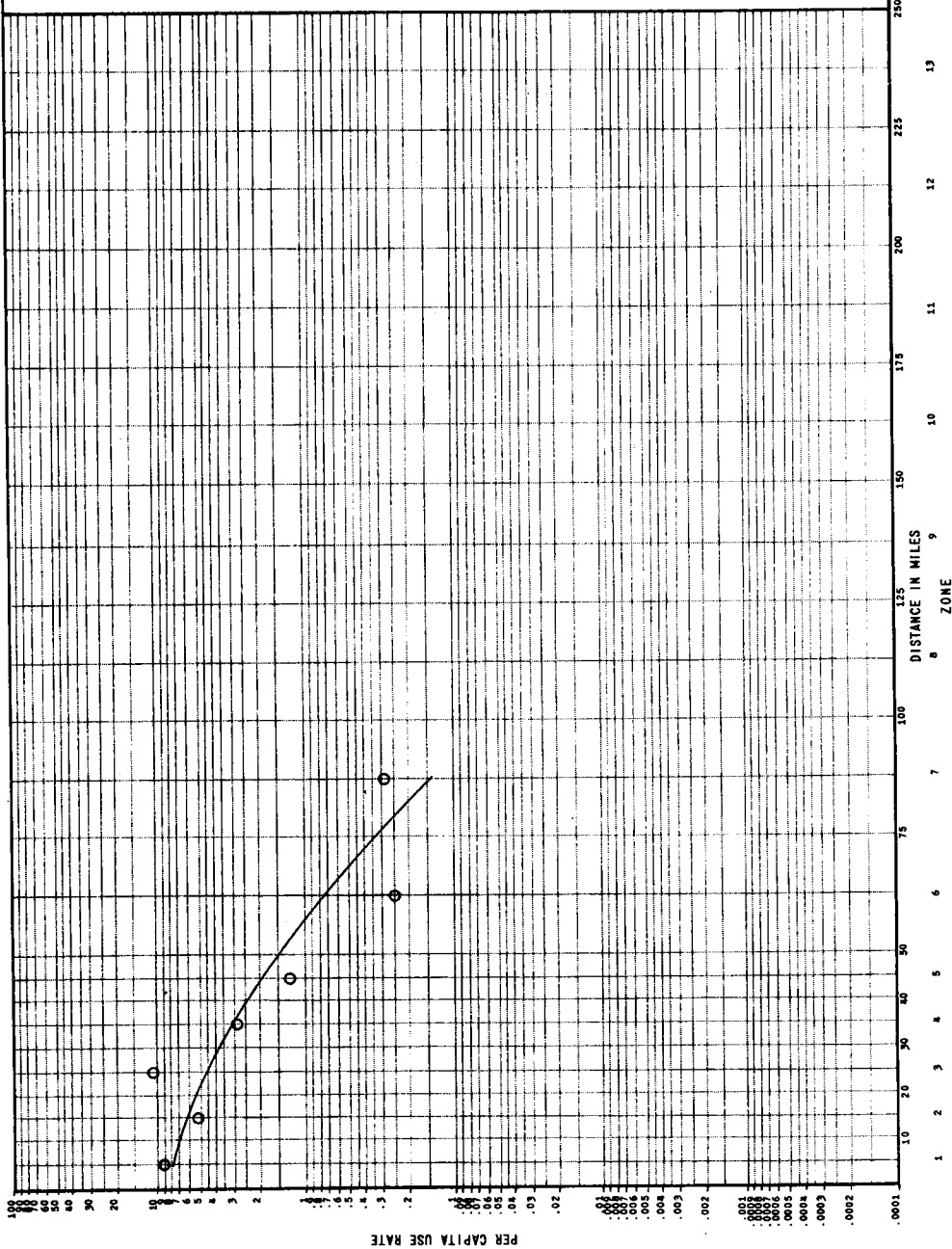
DISTRICT: NASHVILLE
PROJECT: CENTER HILL

LEGEND

- SURVEY ESTIMATE
- REGRESSION ESTIMATE

REGRESSION EQUATION:
 $Y = \text{Exp}(2.129908 - .004927 \times 1.5)$
 $R^2 = .62$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 7.9631 | 16,690 |
| 2 | 6.3194 | 45,980 |
| 3 | 4.5445 | 46,920 |
| 4 | 3.0329 | 61,120 |
| 5 | 1.9009 | 108,960 |
| 6 | .7371 | 887,700 |
| 7 | .1490 | 759,070 |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |



1/REGRESSION ESTIMATE
2/ESTIMATED 1965 POPULATION

PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1968

DISTRICT: NASHVILLE
PROJECT: CHEATHAM

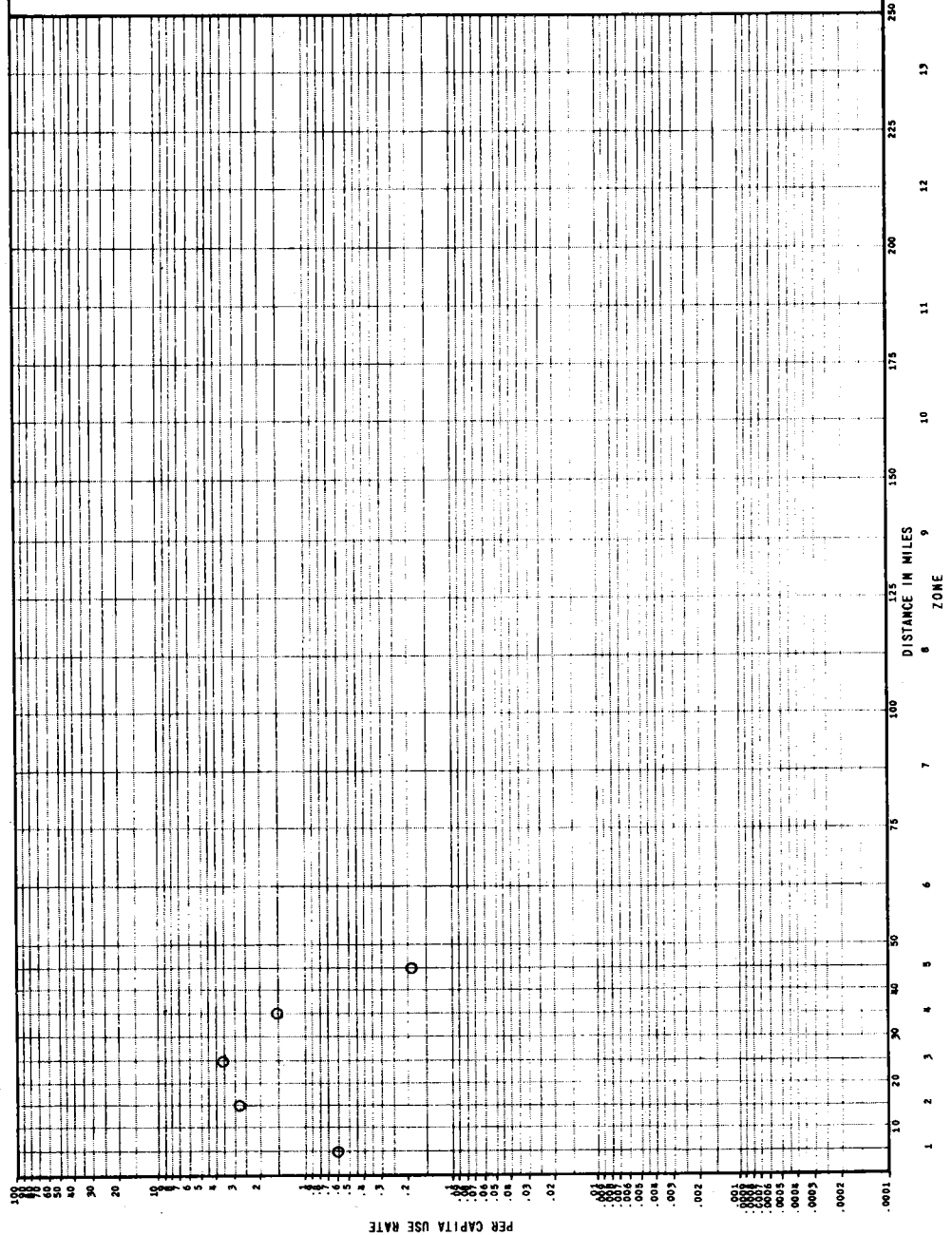
LEGEND

O SURVEY ESTIMATE
— REGRESSION ESTIMATE
REGRESSION EQUATION:

R² =

| ZONE | PER CAPITA USE RATE | ZONEAL POPULATION |
|------|------------------------|----------------------|
| 1 | | 401,480 |
| 2 | | 63,130 |
| 3 | | 107,360 |
| 4 | | 106,260 |
| 5 | | 103,230 |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

— REGRESSION ESTIMATE
2/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT

RECREATION USE

PER CAPITA USE RATES 1966 - 1968

DISTRICT: NASHVILLE

PROJECT: DALE HOLLOW

LEGEND

○ SURVEY ESTIMATE

— REGRESSION ESTIMATE

REGRESSION EQUATION:

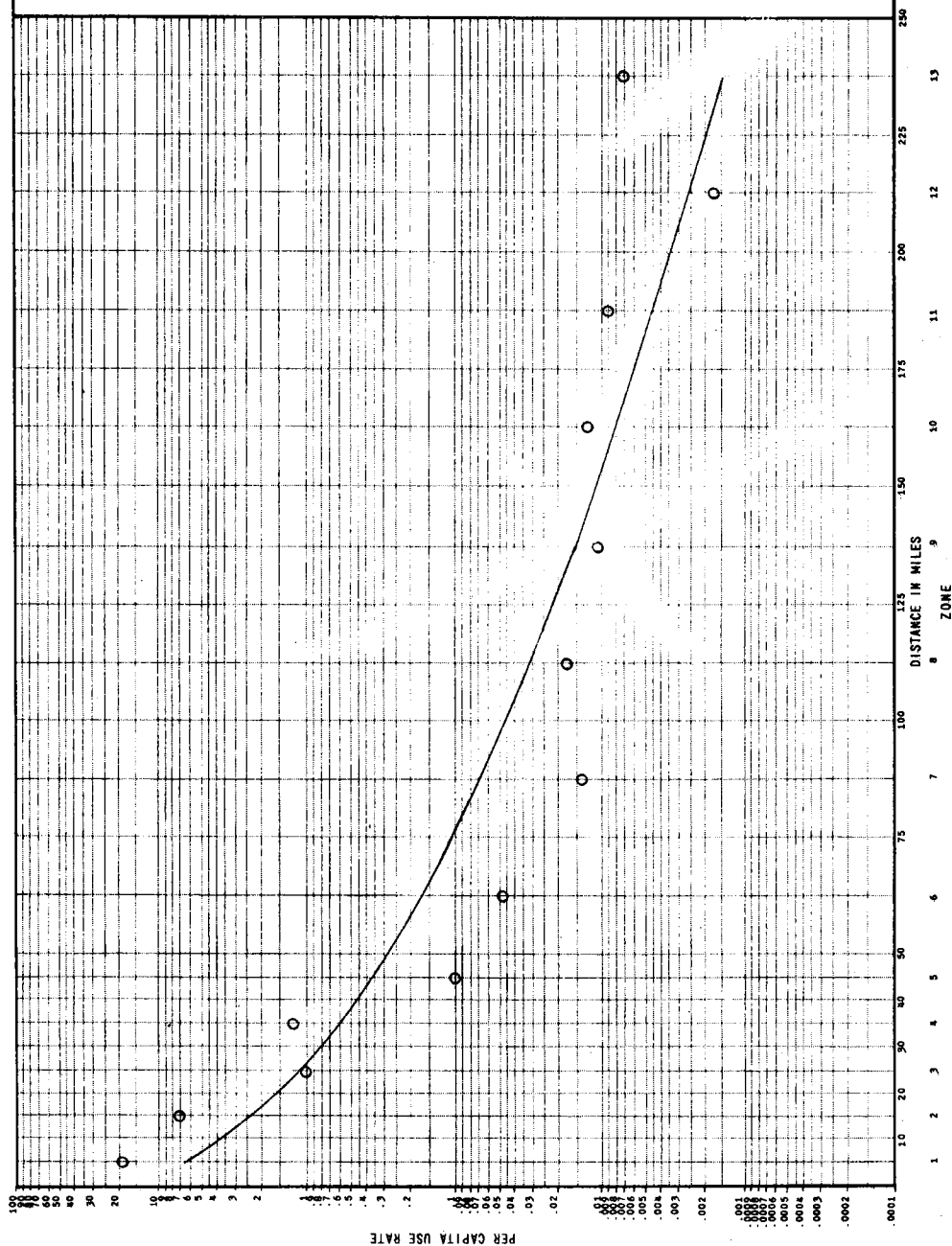
$$Y = \text{Exp}(3.265626 - .633924 X^{.5})$$

$$R^2 = .50$$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 6.3479 | 22,150 |
| 2 | 2.2489 | 28,600 |
| 3 | 1.1008 | 52,880 |
| 4 | .6159 | 49,470 |
| 5 | .3727 | 84,080 |
| 6 | .1745 | 345,780 |
| 7 | .0697 | 1,062,700 |
| 8 | .0315 | 1,232,900 |
| 9 | .0155 | 1,513,780 |
| 10 | .0081 | 1,122,560 |
| 11 | .0045 | 1,819,540 |
| 12 | .0025 | 3,330,950 |
| 13 | .0015 | 3,071,890 |

1/REGRESSION ESTIMATE

2/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT

RECREATION USE

PER CAPITA USE RATES
1966 - 1968

DISTRICT: NASHVILLE
PROJECT: LAKE CUMBERLAND

LEGEND

○ SURVEY ESTIMATE

— REGRESSION ESTIMATE

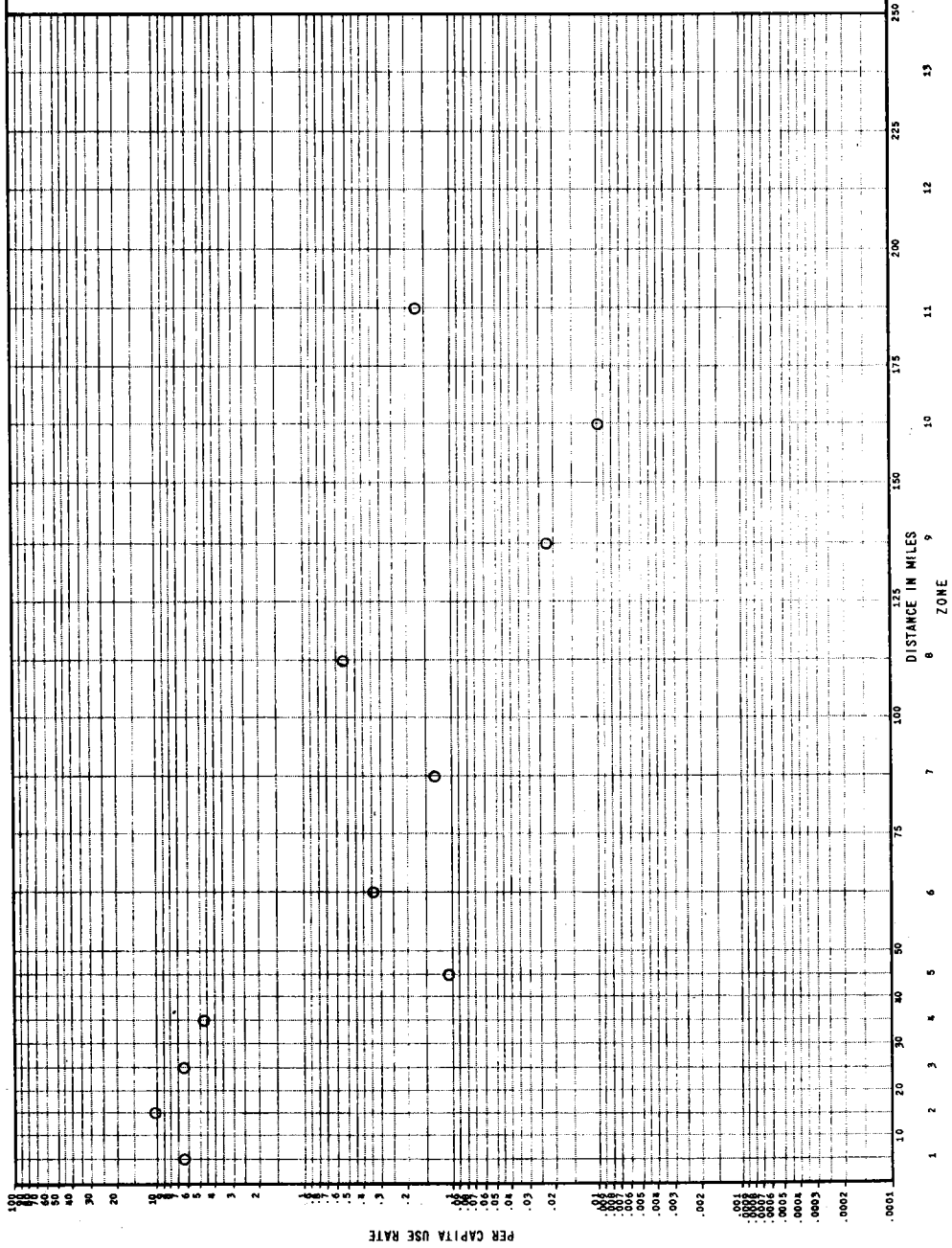
REGRESSION EQUATION:

$R^2 = .$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | | 55,000 |
| 2 | | 56,950 |
| 3 | | 77,490 |
| 4 | | 75,820 |
| 5 | | 120,490 |
| 6 | | 474,600 |
| 7 | | 988,780 |
| 8 | | 1,418,240 |
| 9 | | 1,707,440 |
| 10 | | 2,696,680 |
| 11 | | 1,999,830 |
| 12 | | |
| 13 | | |

1/REGRESSION ESTIMATE

2/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT RECREATION USE

PER CAPITA USE RATES 1966 - 1968

DISTRICT: NASHVILLE
PROJECT: OLD HICKORY

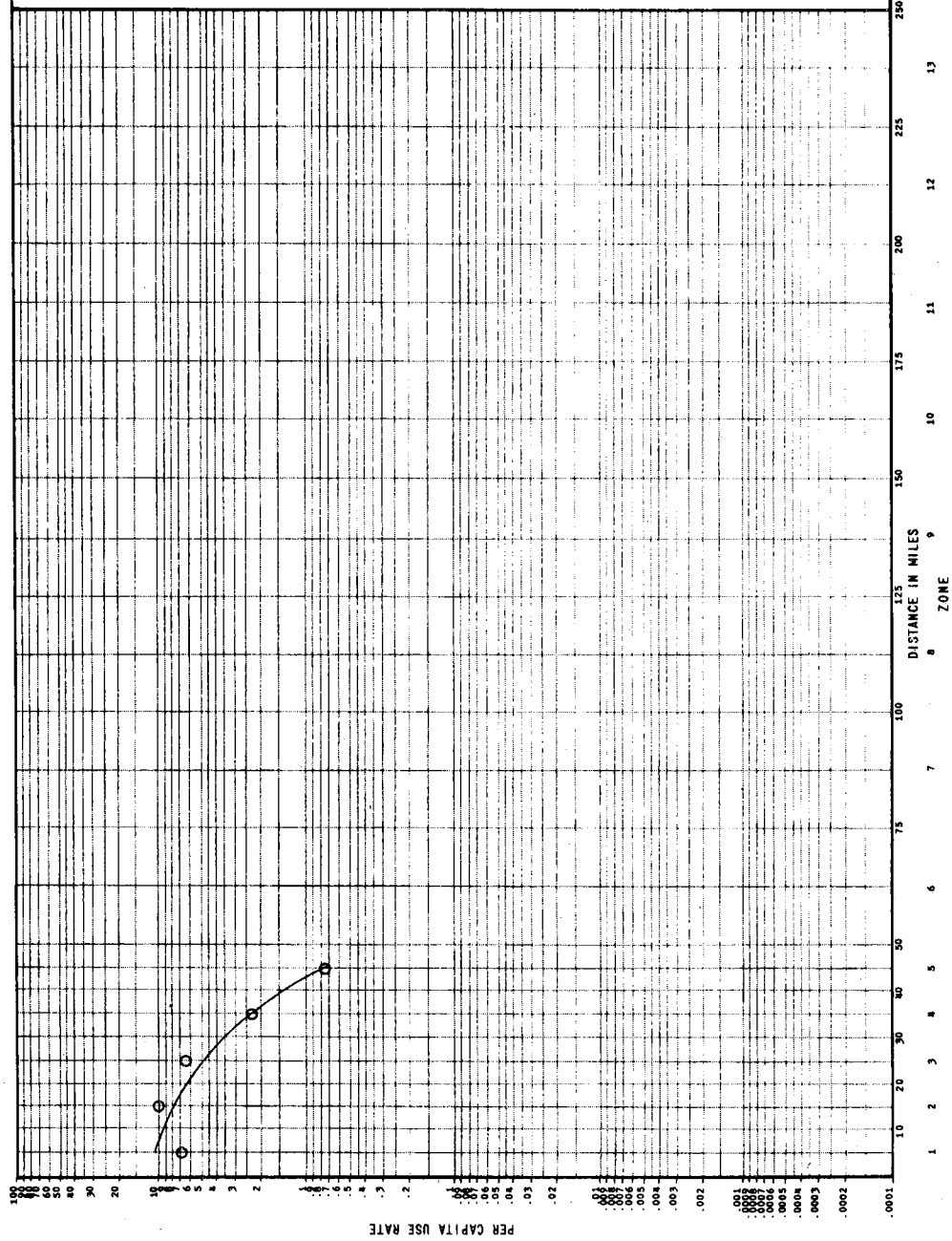
LEGEND

O SURVEY ESTIMATE
— REGRESSION ESTIMATE

REGRESSION EQUATION:
 $Y = \text{Exp}(2.384751 - .001253 \cdot X^2)$
 $R^2 = .66$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 10.5213 | 218,700 |
| 2 | 8.1813 | 177,250 |
| 3 | 4.9578 | 178,970 |
| 4 | 2.3362 | 113,170 |
| 5 | .8566 | 119,950 |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/REGRESSION ESTIMATE
2/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT

RECREATION USE

PER CAPITA USE RATES 1966 - 1968

DISTRICT: PORTLAND
PROJECT: COTTAGE GROVE

LEGEND

O SURVEY ESTIMATE

— REGRESSION ESTIMATE

REGRESSION EQUATION:

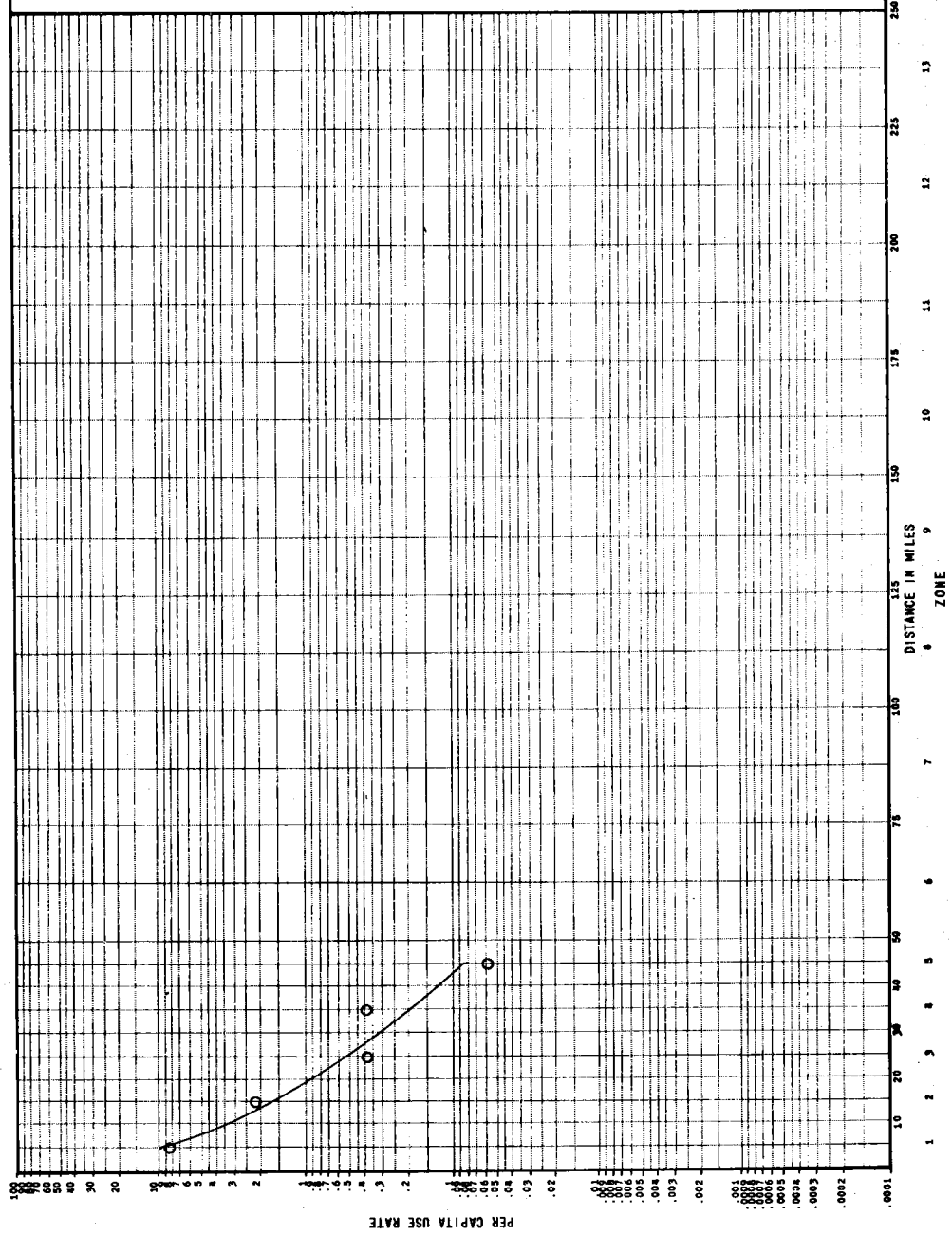
$$Y = \text{Exp}(4.640080 - 1.055036 \cdot X^{.5})$$

$$R^2 = .97$$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 9.7859 | 10,000 |
| 2 | 1.7401 | 8,000 |
| 3 | .5299 | 122,000 |
| 4 | .2016 | 13,000 |
| 5 | .0674 | 72,000 |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/REGRESSION ESTIMATE

2/ESTIMATED 1945 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT RECREATION USE

PER CAPITA USE RATES 1966 - 1968

DISTRICT: PORTLAND
PROJECT: DETROIT

LEGEND

○ SURVEY ESTIMATE
— REGRESSION ESTIMATE

REGRESSION EQUATION:

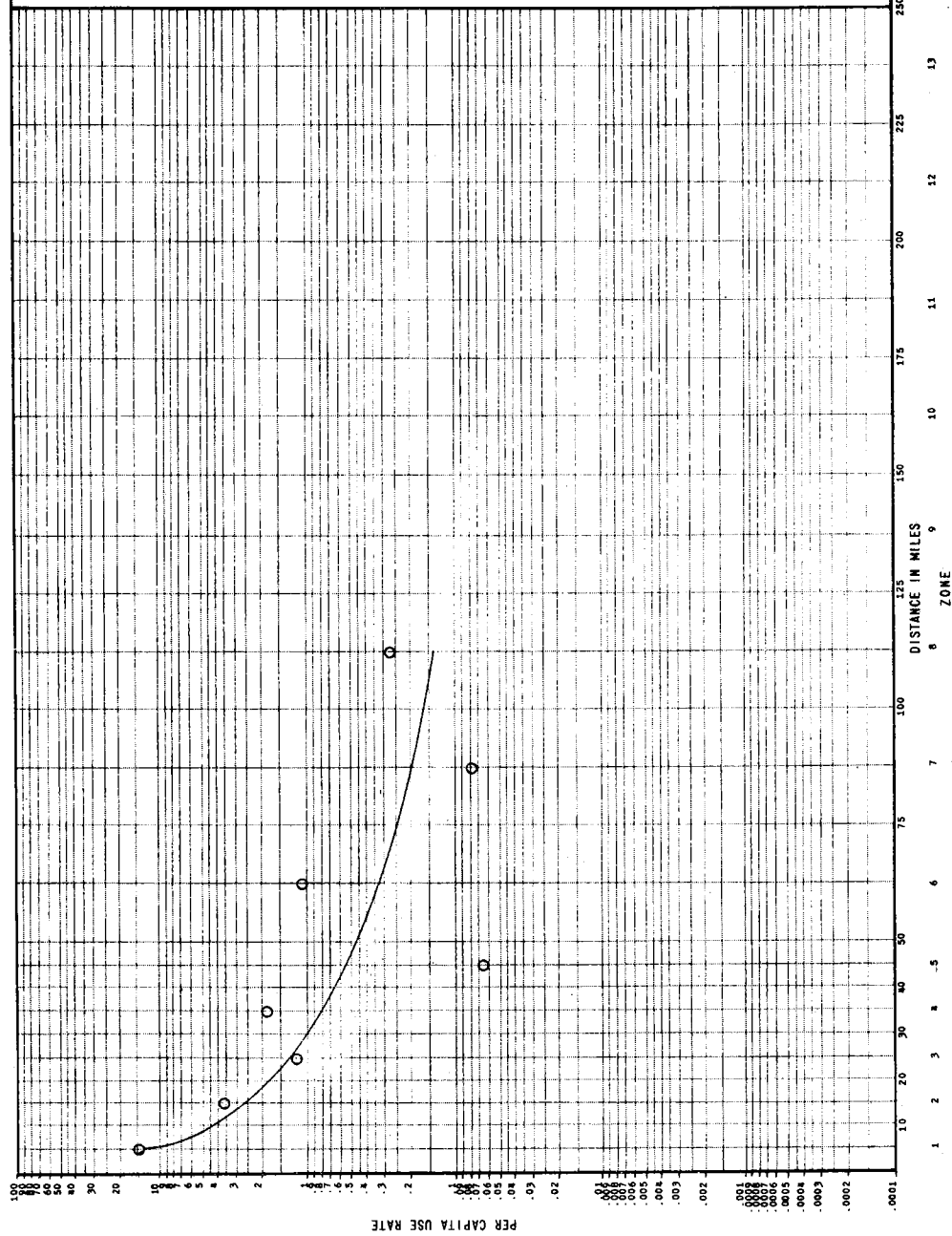
$$Y = \text{Exp}(5.061414 - 1.496712 \cdot \text{LN} X)$$

$$R^2 = .98$$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 14.1902 | 2,000 |
| 2 | 2.7408 | 6,000 |
| 3 | 1.2759 | 6,000 |
| 4 | .7711 | 10,000 |
| 5 | .5294 | 106,000 |
| 6 | .3238 | 190,000 |
| 7 | .1957 | 700,000 |
| 8 | .1343 | 330,000 |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/REGRESSION ESTIMATE

2/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1968

DISTRICT: PORTLAND
PROJECT: DORENA

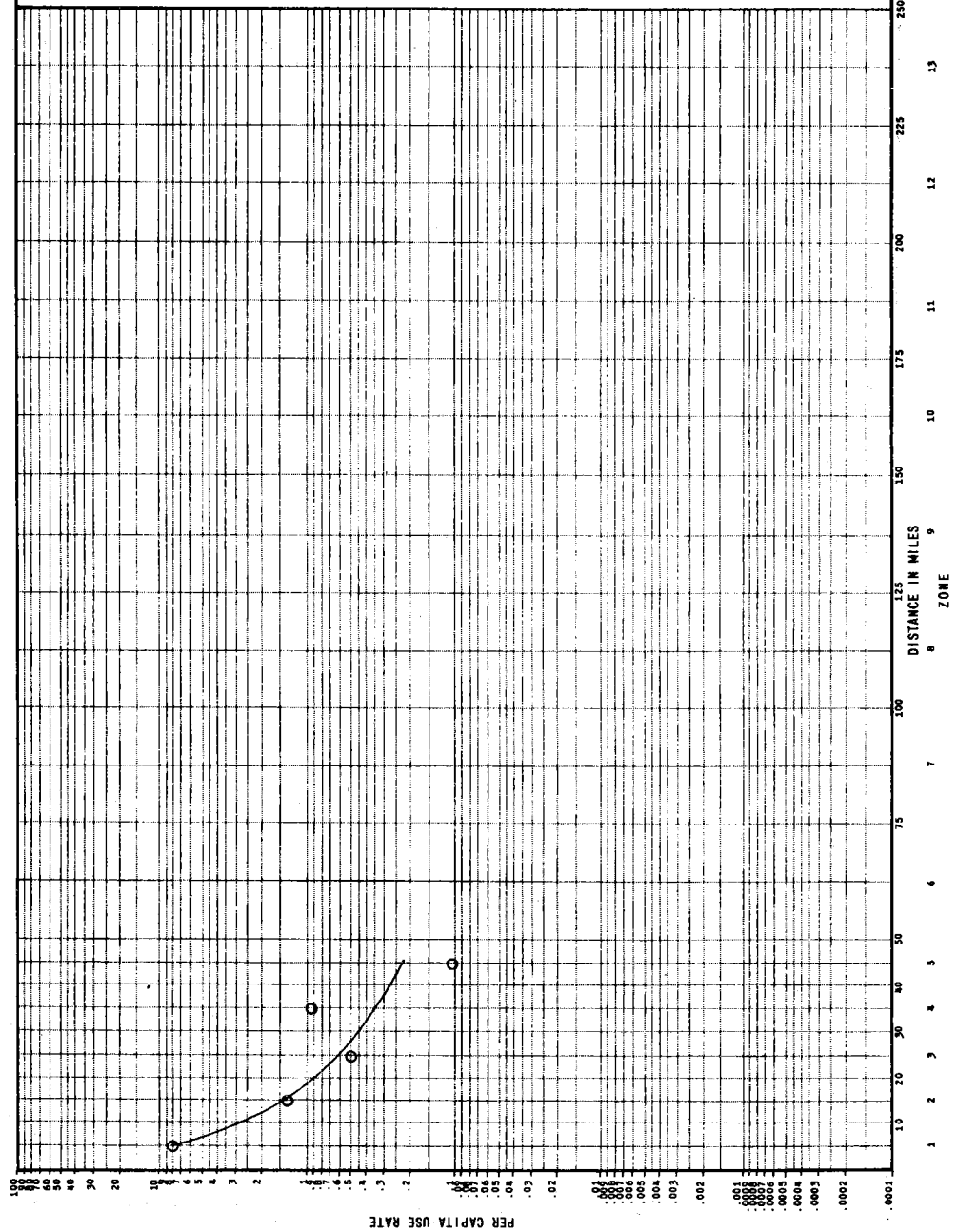
LEGEND

O SURVEY ESTIMATE
— REGRESSION ESTIMATE

REGRESSION EQUATION:
 $Y = \text{Exp}(4.779422 - 1.646454 \text{ LNX})$
 $R^2 = .99$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 8.4111 | 8,000 |
| 2 | 1.3761 | 9,000 |
| 3 | .5943 | 120,000 |
| 4 | .3415 | 8,000 |
| 5 | .2258 | 51,000 |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/REGRESSION ESTIMATE
2/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1968

DISTRICT: PORTLAND
PROJECT: FERN RIDGE

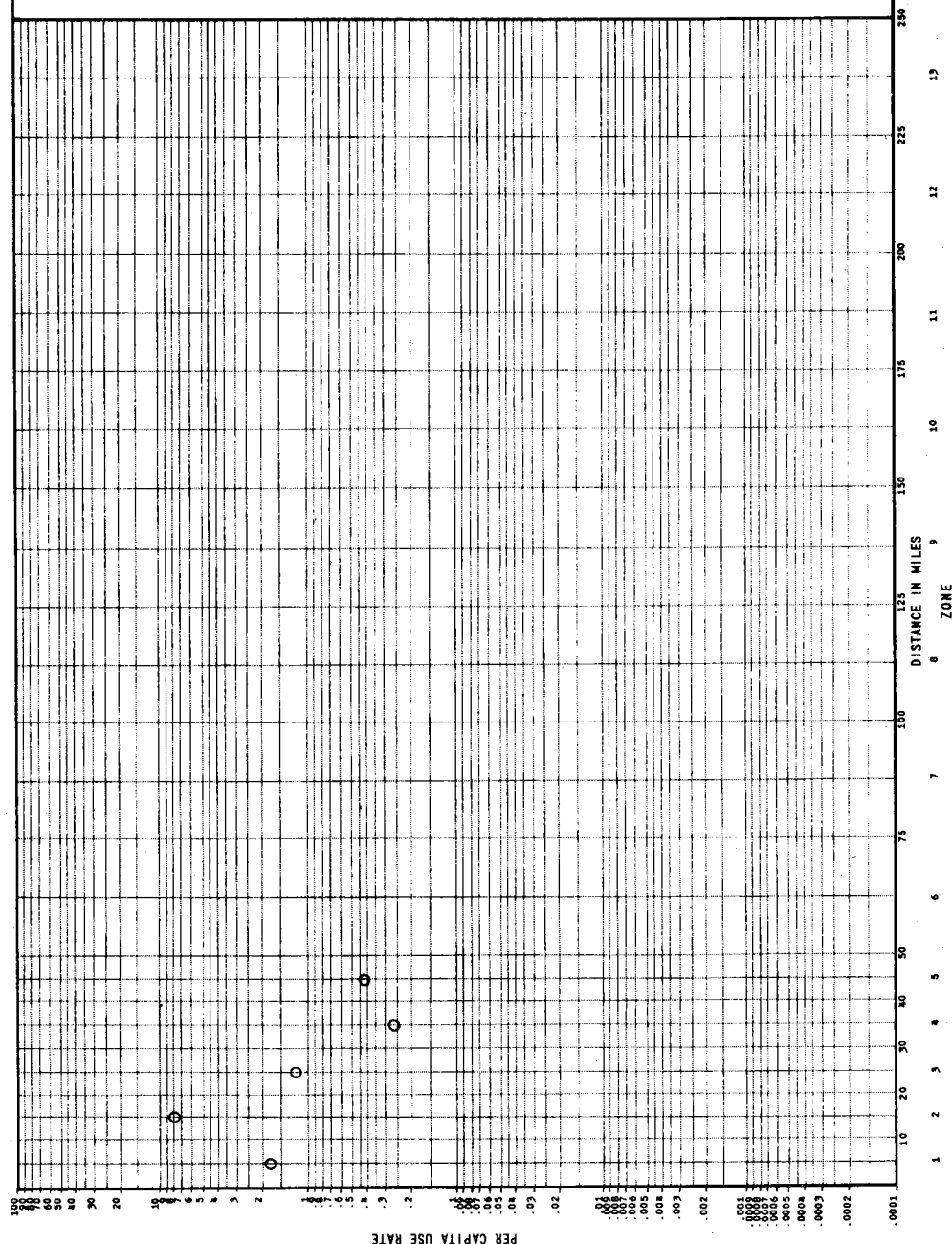
LEGEND

O SURVEY ESTIMATE
— REGRESSION ESTIMATE
REGRESSION EQUATION:

R² = .

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | | 51,000 |
| 2 | | 106,000 |
| 3 | | 23,000 |
| 4 | | 60,000 |
| 5 | | 23,000 |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/REGRESSION ESTIMATE
2/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1968

DISTRICT: PORTLAND
PROJECT: HILLS CREEK

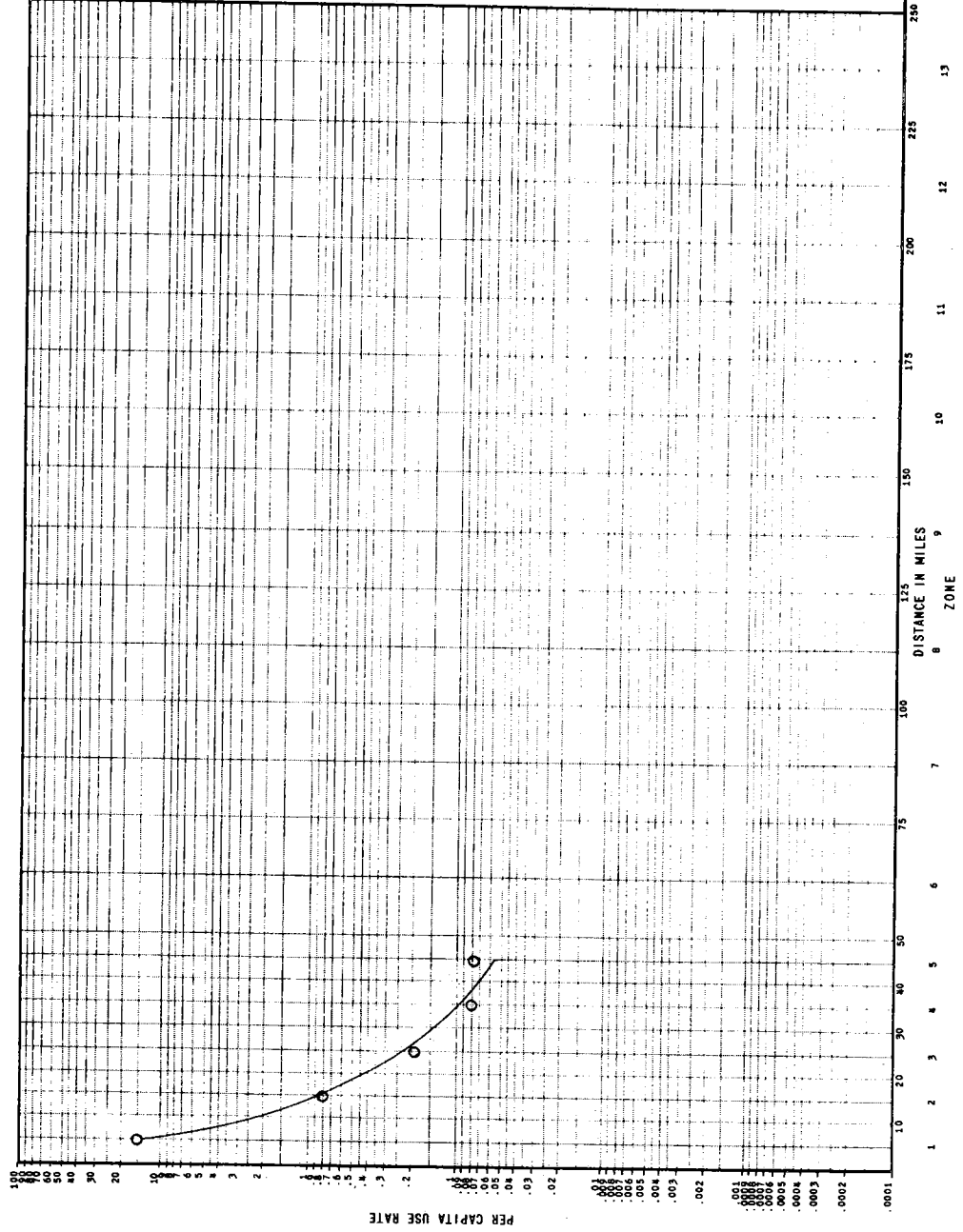
LEGEND

O SURVEY ESTIMATE
— REGRESSION ESTIMATE

REGRESSION EQUATION:
 $Y = \text{Exp}(6.675490 - 2.526950 \text{ LNX})$
 $R^2 = .98$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 13.5789 | 5,000 |
| 2 | .8457 | 4,000 |
| 3 | .2326 | 4,000 |
| 4 | .0994 | 7,000 |
| 5 | .0527 | 133,000 |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/REGRESSION ESTIMATE
2/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT RECREATION USE

PER CAPITA USE RATES 1966 - 1968

DISTRICT: PORTLAND
PROJECT: LOOKOUT POINT

LEGEND

O SURVEY ESTIMATE
— REGRESSION ESTIMATE

REGRESSION EQUATION:

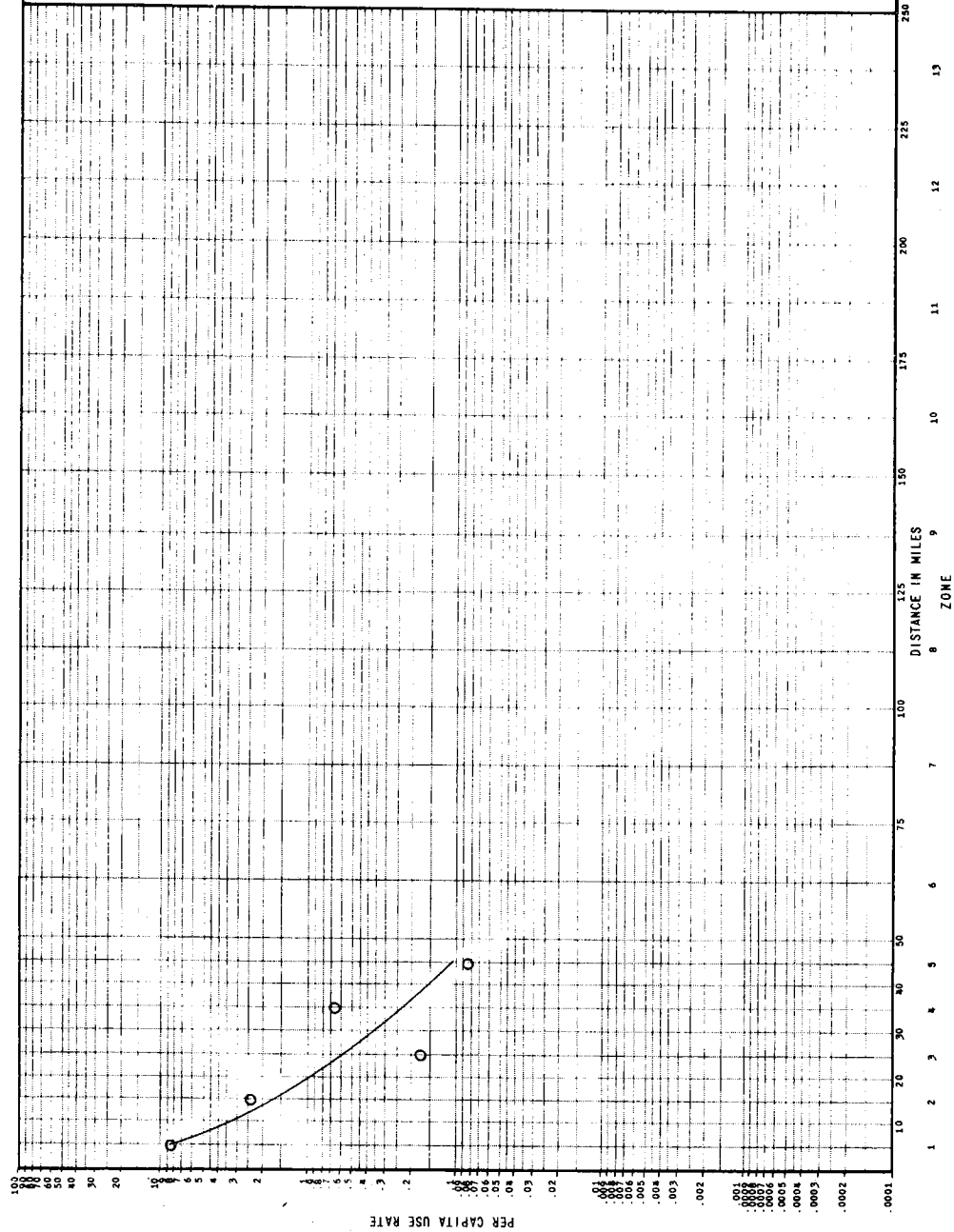
$$Y = \text{Exp}(4.294827 - .974550 X^{.5})$$

$$R^2 = .98$$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 8.2951 | 8,000 |
| 2 | 1.6827 | 54,000 |
| 3 | .5611 | 105,000 |
| 4 | .2298 | 18,000 |
| 5 | .1062 | 15,000 |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

— REGRESSION ESTIMATE

2/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1968

DISTRICT: PORTLAND
PROJECT: DALLES

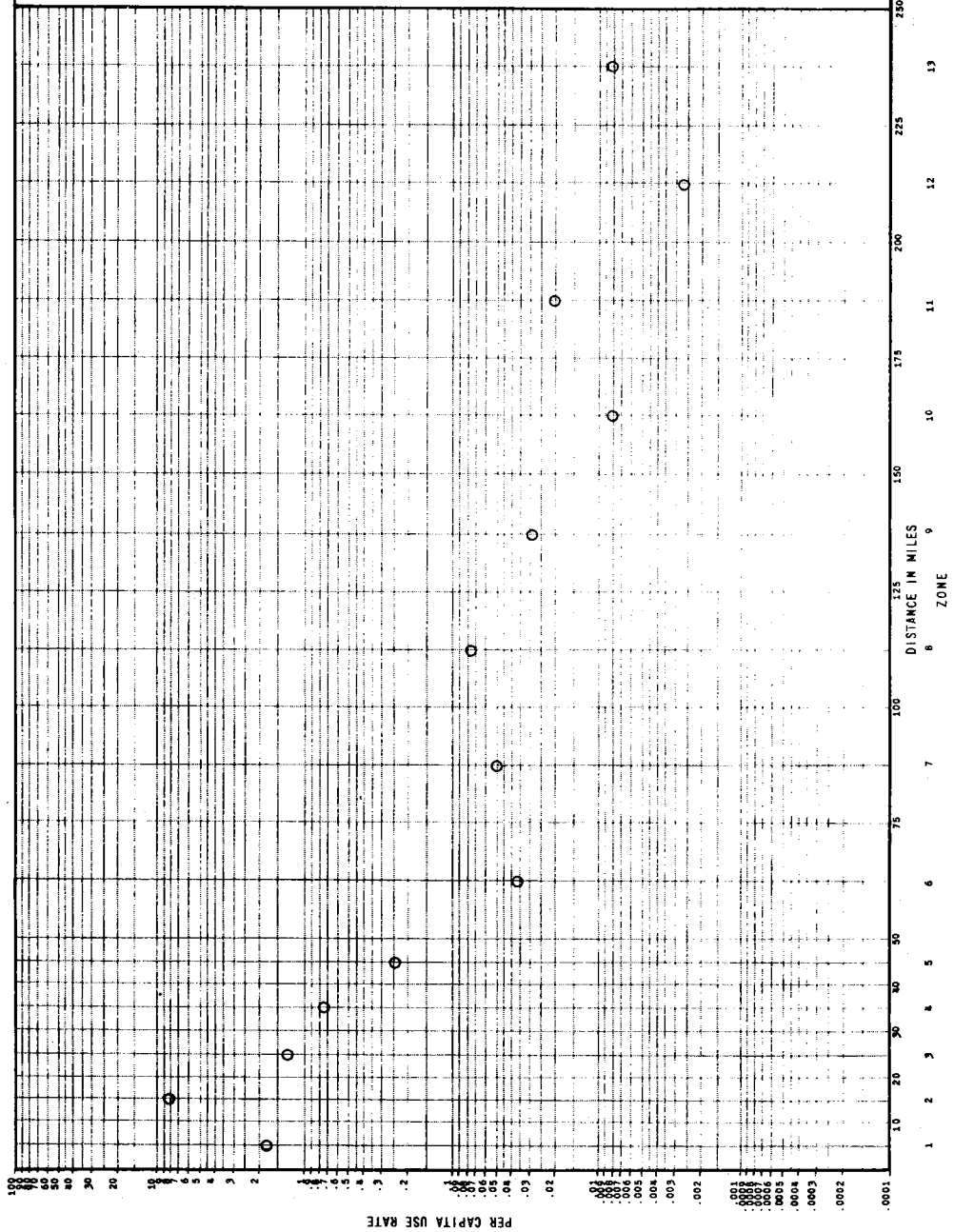
LEGEND

O SURVEY ESTIMATE
— REGRESSION ESTIMATE
REGRESSION EQUATION:

R² = .

| ZONE | PER CAPITA USE RATE | ZONAL 2/ POPULATION |
|------|------------------------|------------------------|
| 1 | | 18,000 |
| 2 | | 10,000 |
| 3 | | 12,000 |
| 4 | | 17,000 |
| 5 | | 13,000 |
| 6 | | 215,000 |
| 7 | | 1,000,000 |
| 8 | | 220,000 |
| 9 | | 480,000 |
| 10 | | 320,000 |
| 11 | | 240,000 |
| 12 | | 840,000 |
| 13 | | 740,000 |

1/REGRESSION ESTIMATE
2/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT

RECREATION USE

PER CAPITA USE RATES
1964 - 1968

DISTRICT: SACRAMENTO

PROJECT: BLACK BUTTE

LEGEND

○ SURVEY ESTIMATE

— REGRESSION ESTIMATE

REGRESSION EQUATION:

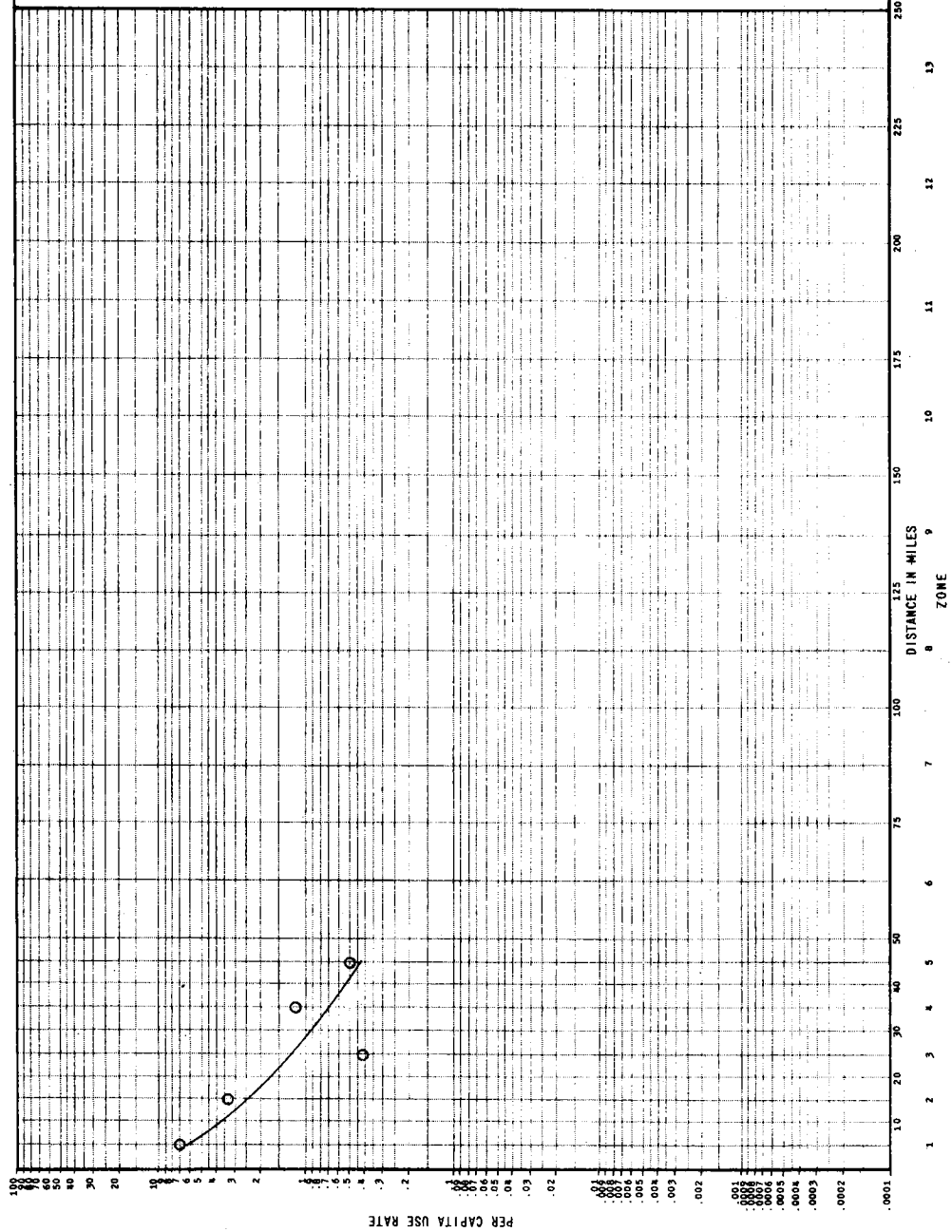
$$Y = \exp(3.163014 - .594158 X^{.5})$$

$$R^2 = .93$$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 6.2616 | 5,120 |
| 2 | 2.3675 | 9,150 |
| 3 | 1.2119 | 38,170 |
| 4 | .7032 | 36,690 |
| 5 | .4392 | 19,170 |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/REGRESSION ESTIMATE

2/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT RECREATION USE

PER CAPITA USE RATES 1964 - 1968

DISTRICT: SACRAMENTO
PROJECT: ENGLEBRIGHT

LEGEND

○ SURVEY ESTIMATE

— REGRESSION ESTIMATE

REGRESSION EQUATION:

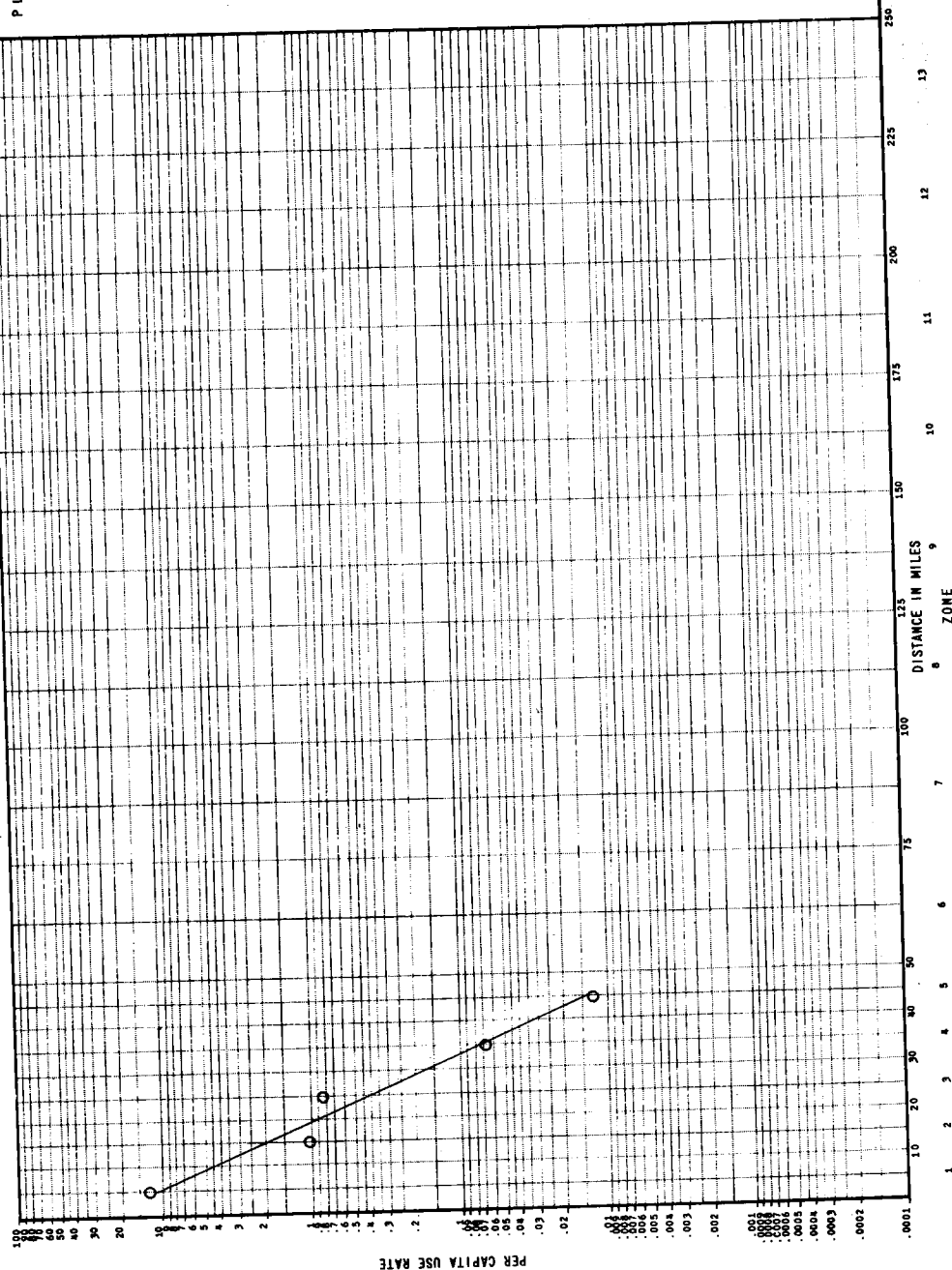
$$Y = \text{Exp}(3.220384 - .165729 \bar{X})$$

$$R^2 = .96$$

| ZONE | PER CAPITA 1/ USE RATE | ZONAL 2/ POPULATION |
|------|---------------------------|------------------------|
| 1 | 10.9324 | 1,460 |
| 2 | 2.0843 | 20,820 |
| 3 | .3979 | 58,260 |
| 4 | .0758 | 53,490 |
| 5 | .0144 | 43,770 |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/ REGRESSION ESTIMATE

2/ ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1964 - 1968

DISTRICT: SACRAMENTO
PROJECT: ISABELLA

LEGEND

- O SURVEY ESTIMATE
- REGRESSION ESTIMATE

REGRESSION EQUATION:

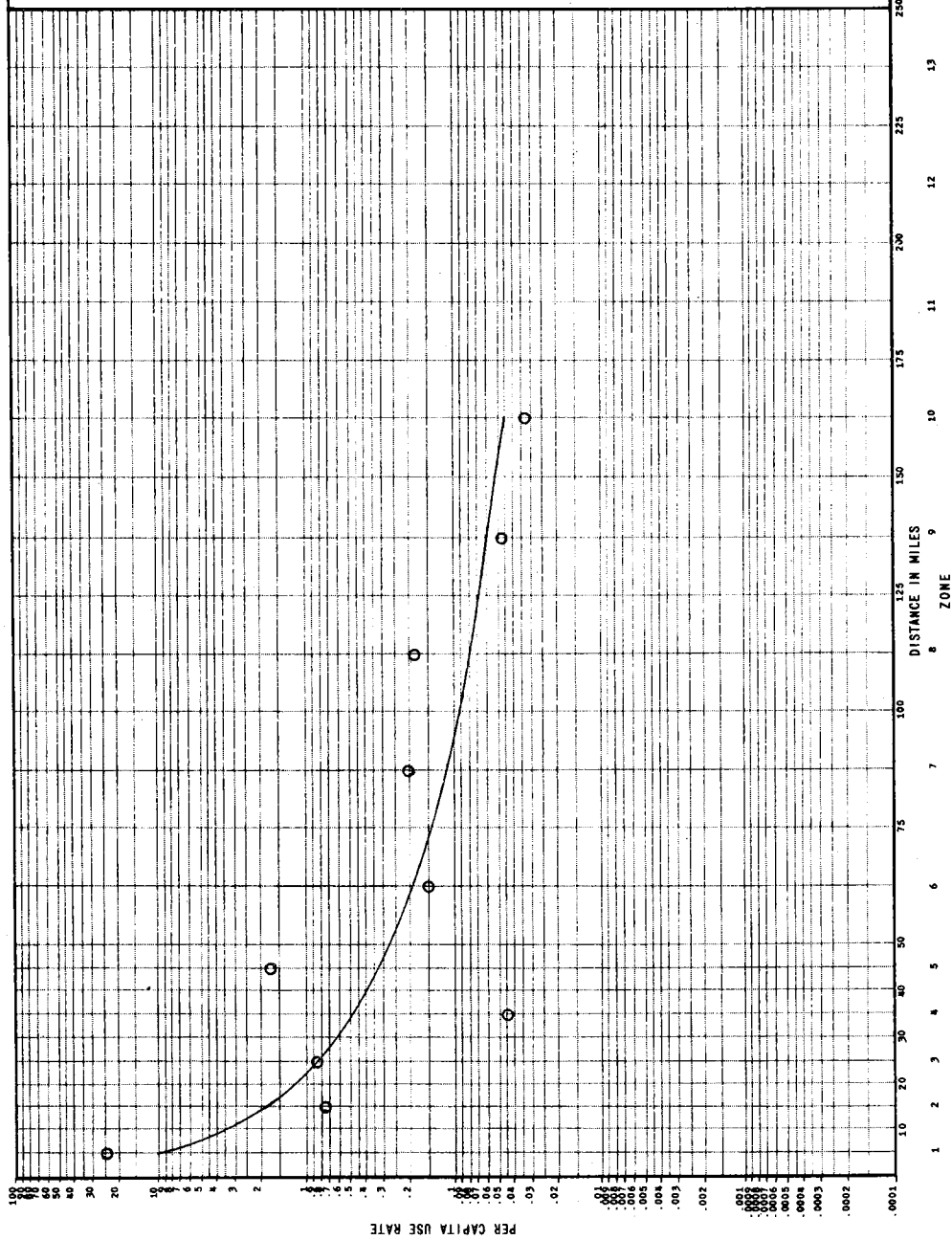
$$Y = \text{Exp}(4.792274 - 1.550324 \text{ LNX})$$

$$R^2 = .59$$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 9.9455 | 1,690 |
| 2 | 1.8111 | 1,010 |
| 3 | .8203 | 1,800 |
| 4 | .4869 | 43,200 |
| 5 | .3298 | 98,810 |
| 6 | .1982 | 179,310 |
| 7 | .1176 | 88,130 |
| 8 | .0797 | 165,060 |
| 9 | .0584 | 2,508,170 |
| 10 | .0451 | 5,266,130 |
| 11 | | |
| 12 | | |
| 13 | | |

1/REGRESSION ESTIMATE

2/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT

RECREATION USE

PER CAPITA USE RATES 1964 - 1968

DISTRICT: SACRAMENTO
PROJECT: NEW HOGAN

LEGEND

O SURVEY ESTIMATE
— REGRESSION ESTIMATE

REGRESSION EQUATION:

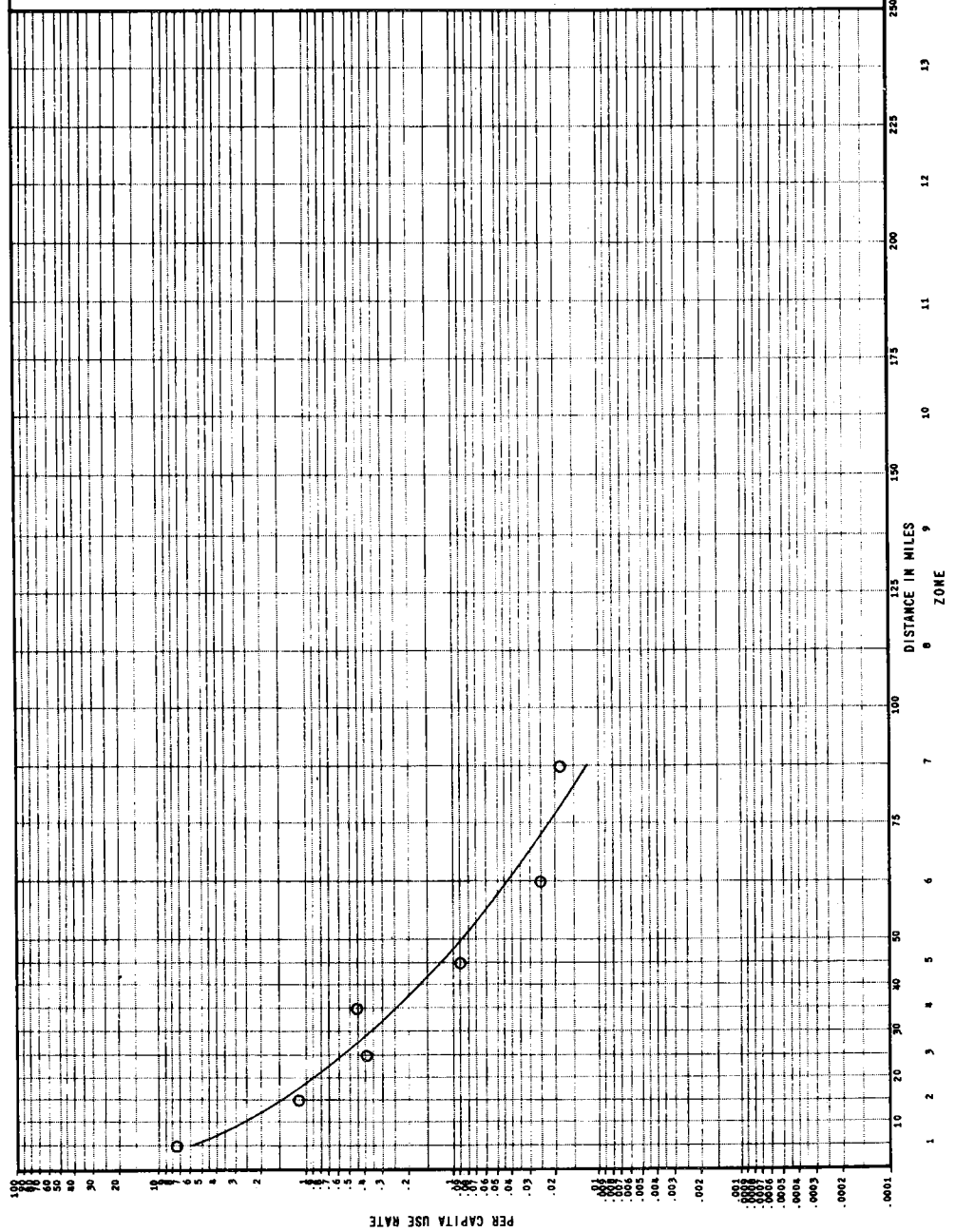
$$Y = \text{Exp}(3.695811 - .866096 X^{.5})$$

$$R^2 = .94$$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 5.8076 | 1,660 |
| 2 | 1.4070 | 7,860 |
| 3 | .5301 | 20,600 |
| 4 | .2398 | 193,590 |
| 5 | .1207 | 220,710 |
| 6 | .0428 | 751,250 |
| 7 | .0122 | 1,457,740 |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

— REGRESSION ESTIMATE

Z/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT RECREATION USE

PER CAPITA USE RATES 1964 - 1968

DISTRICT: SACRAMENTO
PROJECT: PINE FLAT

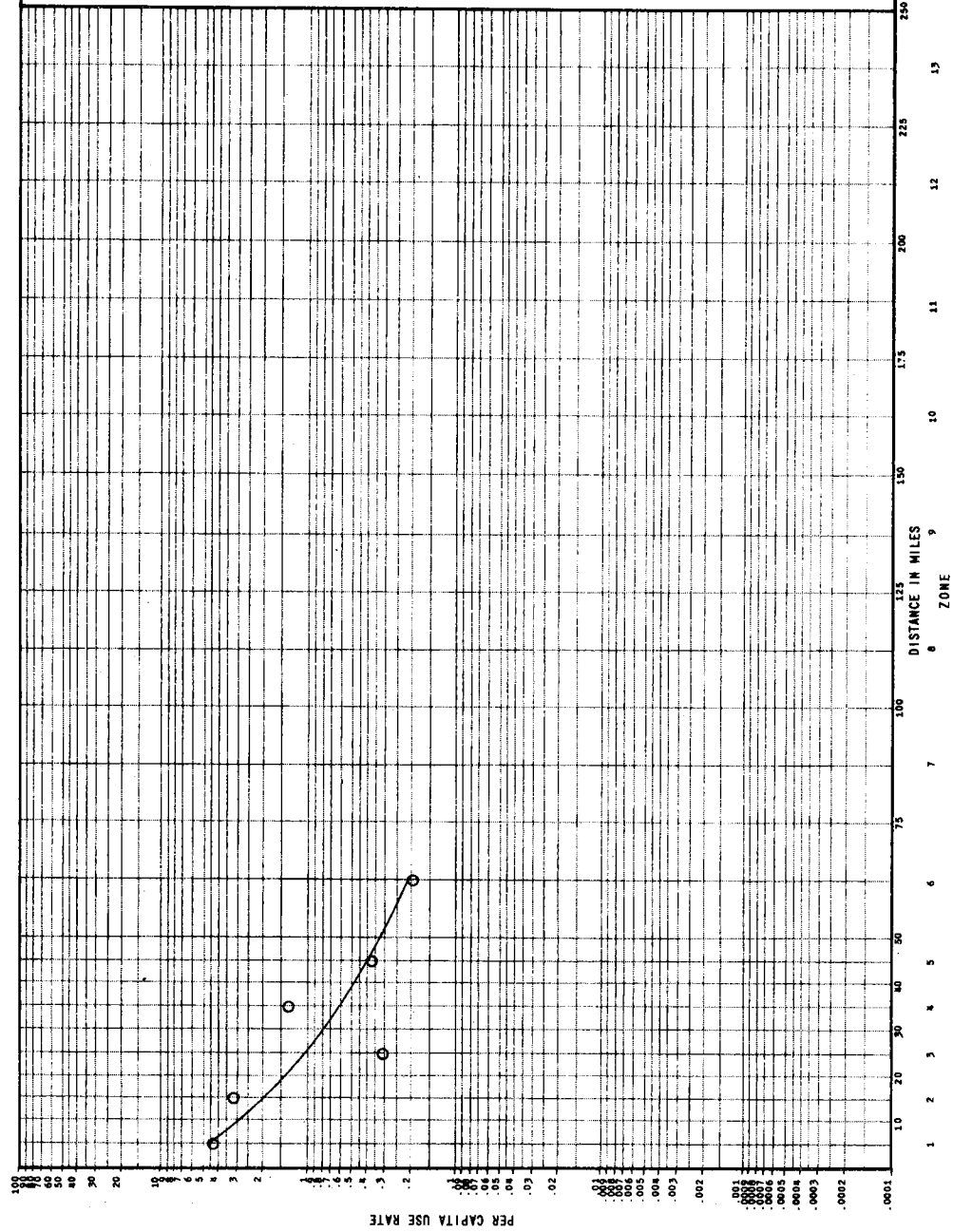
LEGEND

O SURVEY ESTIMATE
— REGRESSION ESTIMATE

REGRESSION EQUATION:
 $Y = \text{Exp}(2.731100 - .543442 X^{.5})$
 $R^2 = .81$

| ZONE | PER CAPITA USE RATE | ZONAL Σ POPULATION |
|------|------------------------|------------------------------|
| 1 | 4.5536 | 1,160 |
| 2 | 3.8708 | 15,070 |
| 3 | 1.0140 | 172,450 |
| 4 | .6163 | 184,020 |
| 5 | .4007 | 77,500 |
| 6 | .2090 | 177,670 |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

Σ / REGRESSION ESTIMATE
 Σ / ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION
ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1964 - 1968

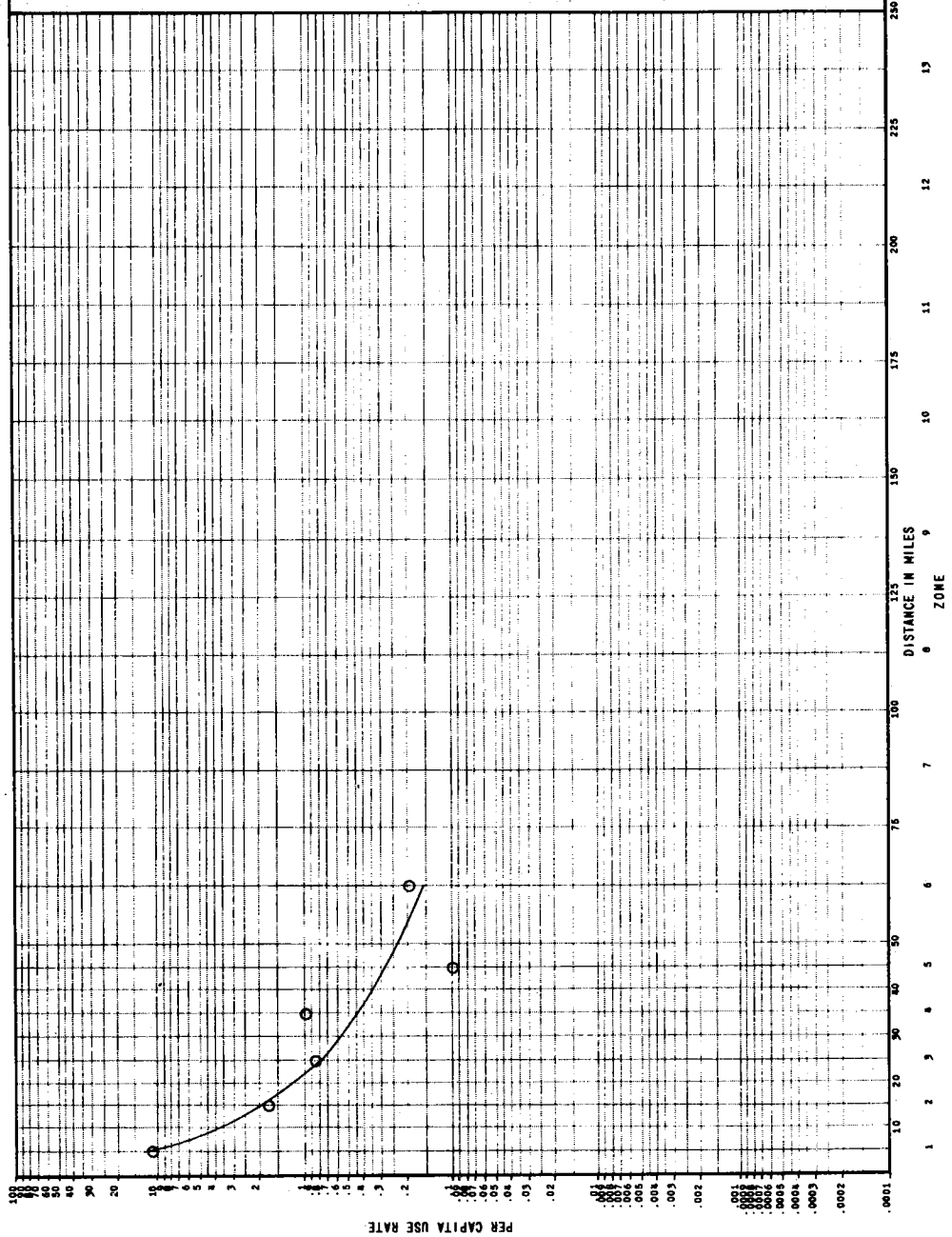
DISTRICT: SACRAMENTO
PROJECT: SUCCESS

LEGEND
O SURVEY ESTIMATE
— REGRESSION ESTIMATE

REGRESSION EQUATION:
 $Y = \exp(5.290013 - 1.727023 \ln X)$
 $R^2 = .99$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 12.3108 | 21,260 |
| 2 | 1.8462 | 28,550 |
| 3 | .7641 | 30,200 |
| 4 | .4273 | 60,460 |
| 5 | .2769 | 66,330 |
| 6 | .1570 | 35,660 |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/REGRESSION ESTIMATE
2/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT RECREATION USE

PER CAPITA USE RATES 1964 - 1968

DISTRICT: SACRAMENTO
PROJECT: TERMINUS

LEGEND

○ SURVEY ESTIMATE

— REGRESSION ESTIMATE

REGRESSION EQUATION:

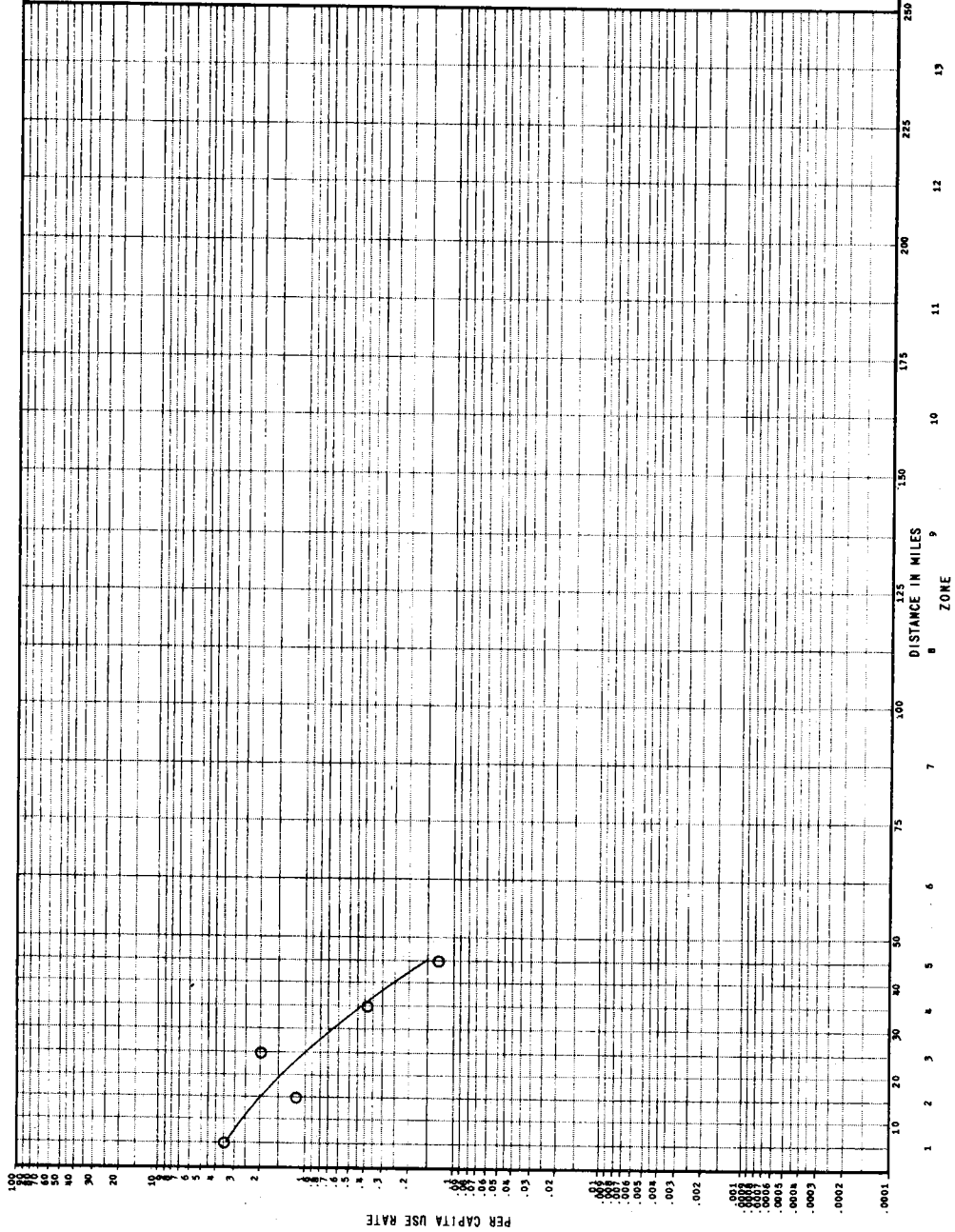
$$Y = \text{Exp}(1.308923 - .010562 \times 1.5)$$

$$R^2 = .77$$

| ZONE | PER CAPITA 1/ USE RATE | ZONAL 2/ POPULATION |
|------|---------------------------|------------------------|
| 1 | 3.2898 | 8,060 |
| 2 | 2.0042 | 51,880 |
| 3 | .9886 | 82,840 |
| 4 | .4155 | 53,250 |
| 5 | .1526 | 91,870 |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/REGRESSION ESTIMATE

2/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1968

DISTRICT: SAVANNAH
PROJECT: CLARK HILL

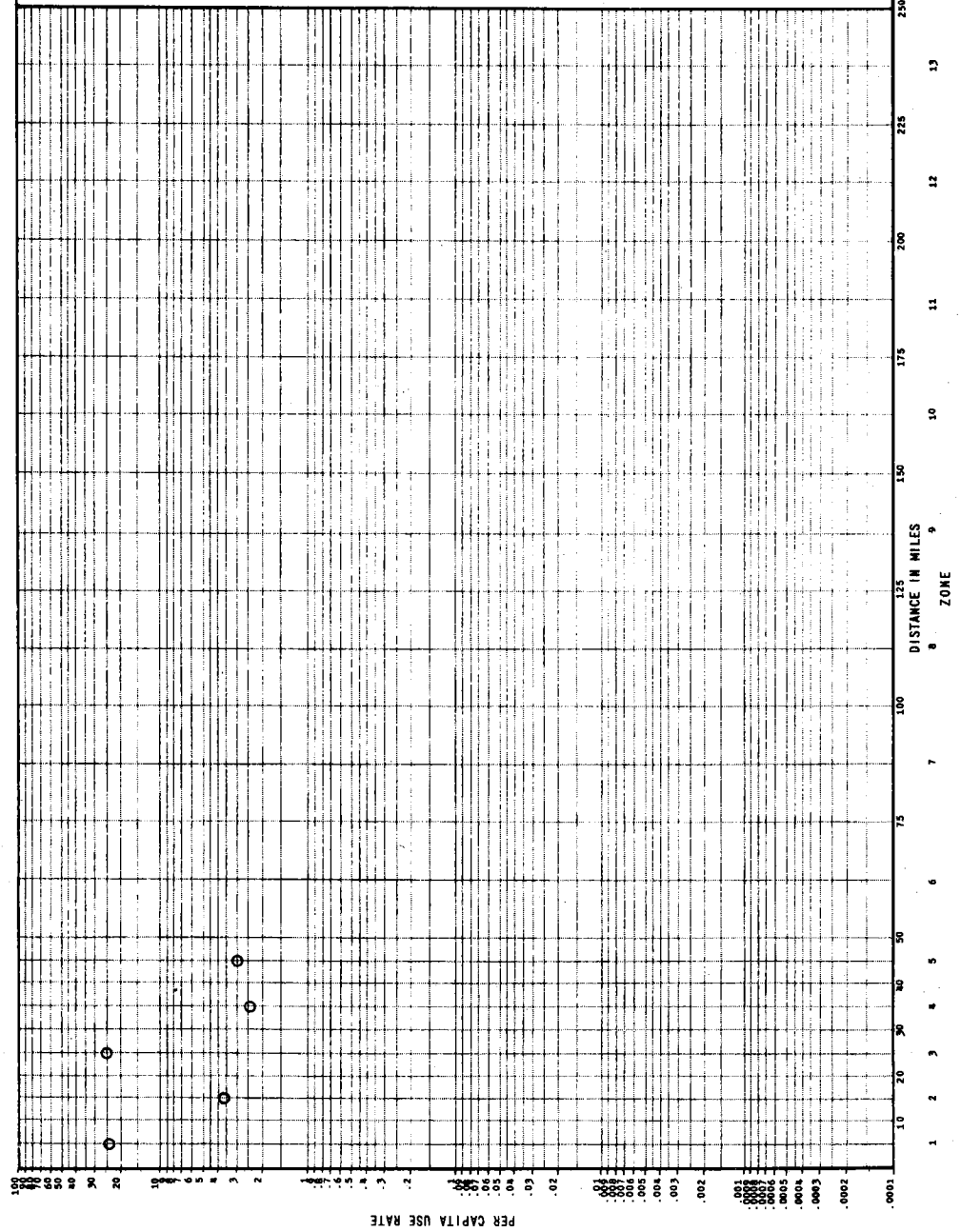
LEGEND

O SURVEY ESTIMATE
— REGRESSION ESTIMATE
REGRESSION EQUATION:

R² = .

| ZONE | PER CAPITA USE RATE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|------------------------|---------------------|
| 1 | | | 27,600 |
| 2 | | | 43,440 |
| 3 | | | 58,510 |
| 4 | | | 205,400 |
| 5 | | | 137,510 |
| 6 | | | |
| 7 | | | |
| 8 | | | |
| 9 | | | |
| 10 | | | |
| 11 | | | |
| 12 | | | |
| 13 | | | |

— REGRESSION ESTIMATE
Z/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT RECREATION USE

PER CAPITA USE RATES 1966 - 1968

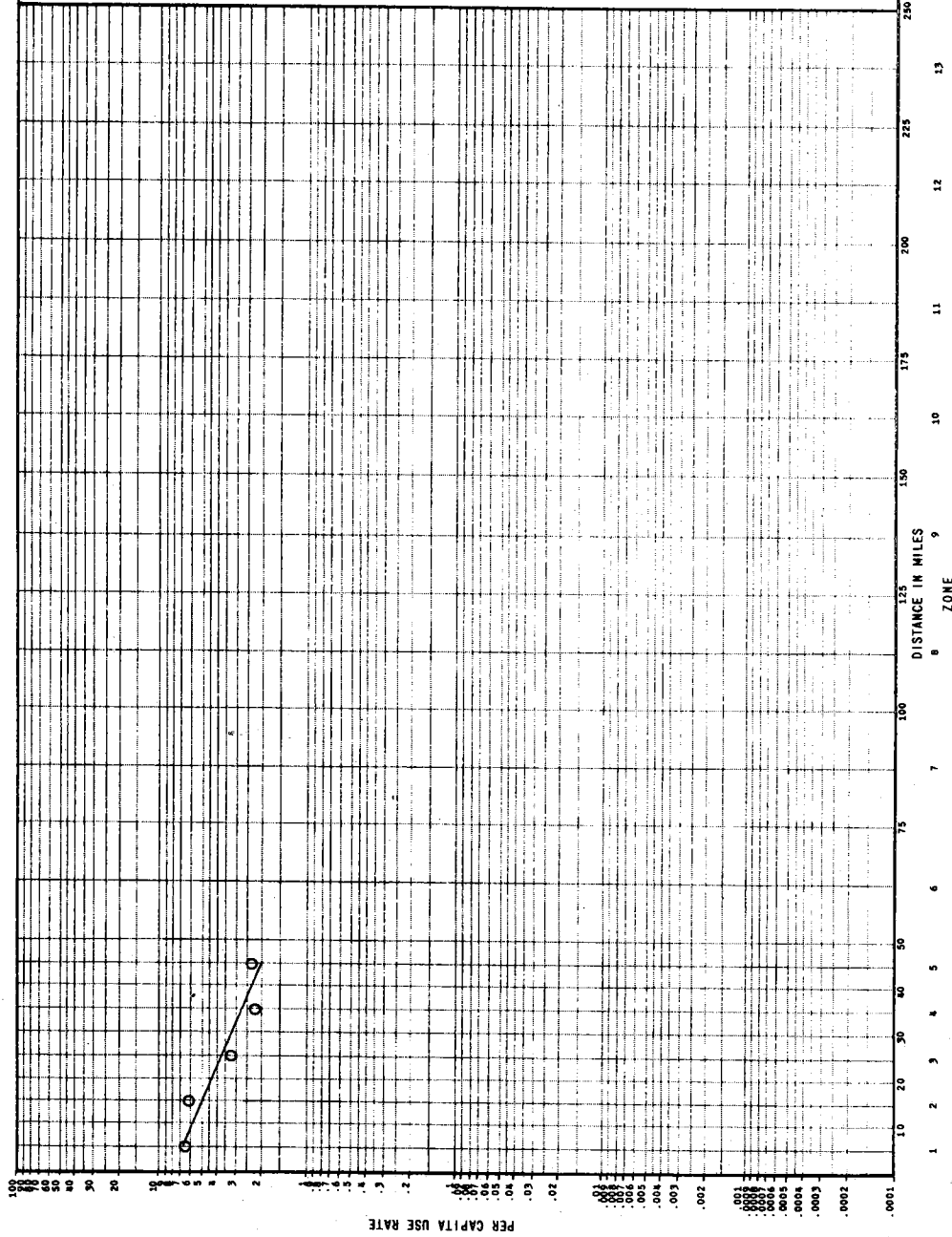
DISTRICT: SAVANNAH
PROJECT: HARTWELL

LEGEND

O SURVEY ESTIMATE
— REGRESSION ESTIMATE

REGRESSION EQUATION:
 $Y = \text{Exp}(2.073548 - .030647 \cdot X)$
 $R^2 = .87$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 6.8231 | 144,820 |
| 2 | 5.0220 | 114,590 |
| 3 | 3.6963 | 97,740 |
| 4 | 2.7206 | 190,980 |
| 5 | 2.0025 | 253,710 |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |



— REGRESSION ESTIMATE
Z/ESTIMATED 1965 POPULATION

PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1968

DISTRICT: TULSA
PROJECT: CANTON

LEGEND

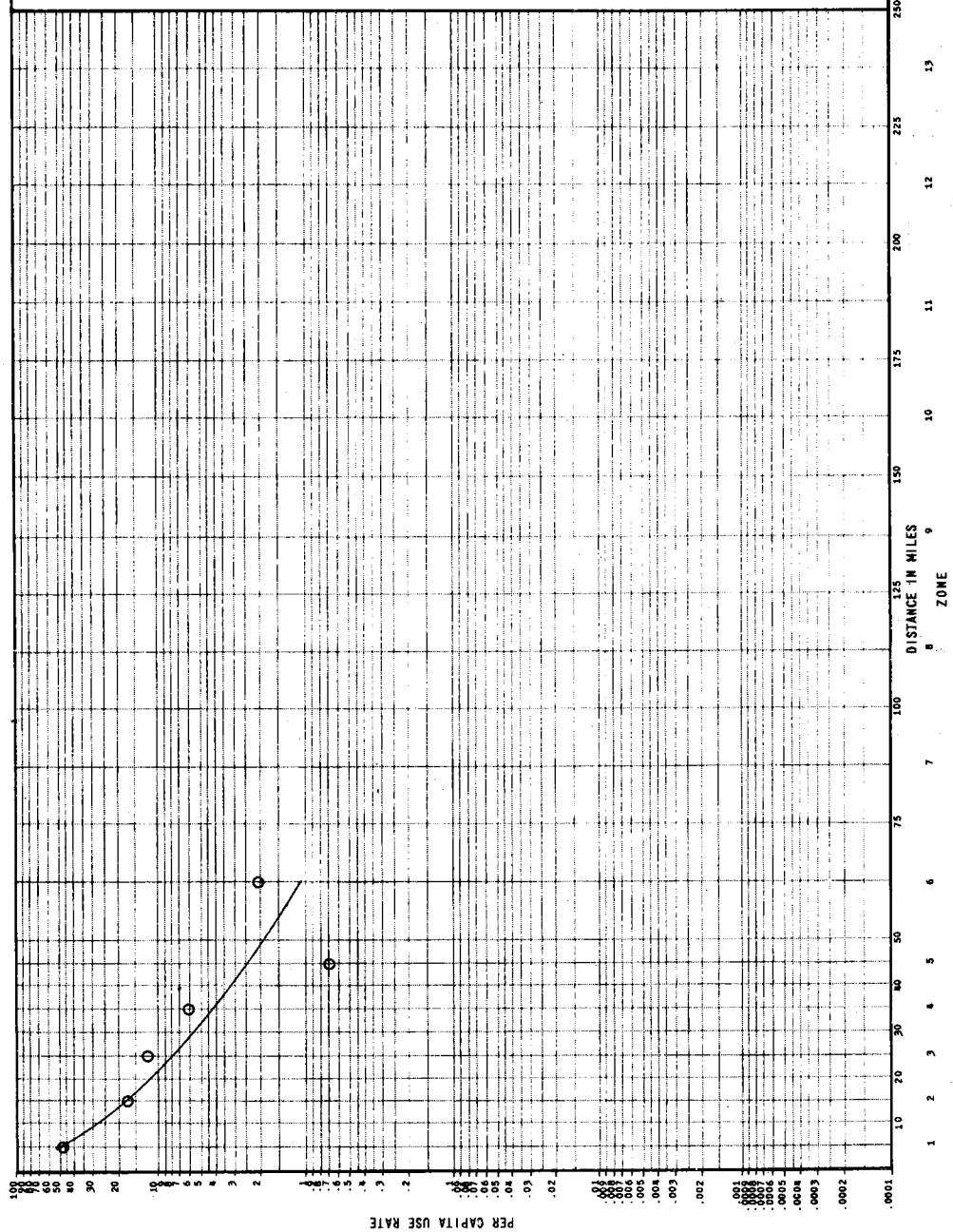
○ SURVEY ESTIMATE
— REGRESSION ESTIMATE

REGRESSION EQUATION:
 $Y = \exp(5.445523 - .671784 X^{.5})$

$R^2 = .98$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 51.5920 | 2,970 |
| 2 | 17.179- | 8,020 |
| 3 | 8.0575 | 8,150 |
| 4 | 4.3544 | 9,470 |
| 5 | 2.5576 | 22,230 |
| 6 | 1.1441 | 137,440 |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/REGRESSION ESTIMATE
2/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1968

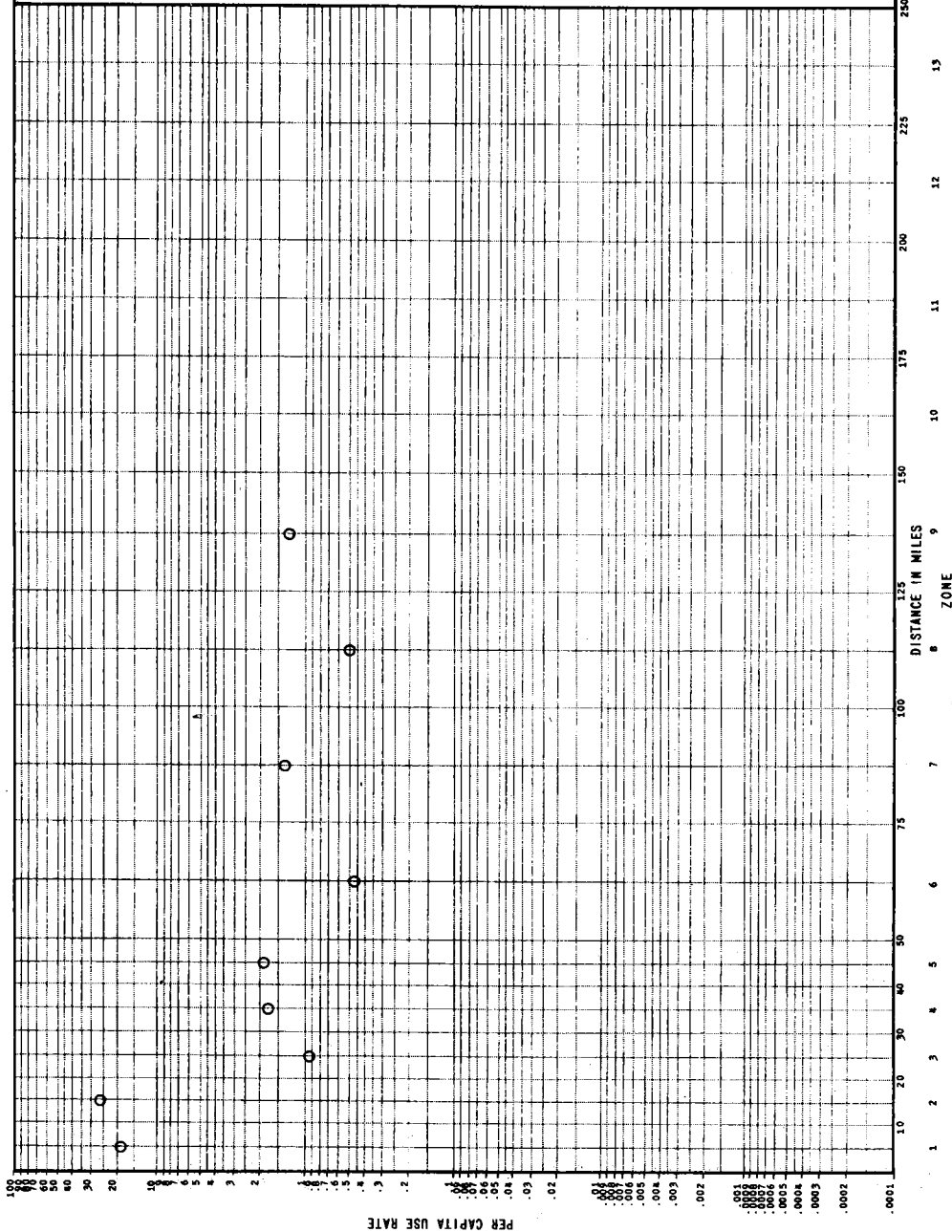
DISTRICT: TULSA
PROJECT: DENISON

LEGEND

O SURVEY ESTIMATE
— REGRESSION ESTIMATE
REGRESSION EQUATION:

R² = .

| ZONE | PER CAPITA USE RATE | ZONE POPULATION |
|------|------------------------|--------------------|
| 1 | | 53,360 |
| 2 | | 60,800 |
| 3 | | 54,270 |
| 4 | | 67,980 |
| 5 | | 68,740 |
| 6 | | 523,800 |
| 7 | | 1,334,100 |
| 8 | | 984,700 |
| 9 | | 889,500 |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |



1/ REGRESSION ESTIMATE
2/ ESTIMATED 1965 POPULATION

PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1968

DISTRICT: TULSA
PROJECT: EUFAULA

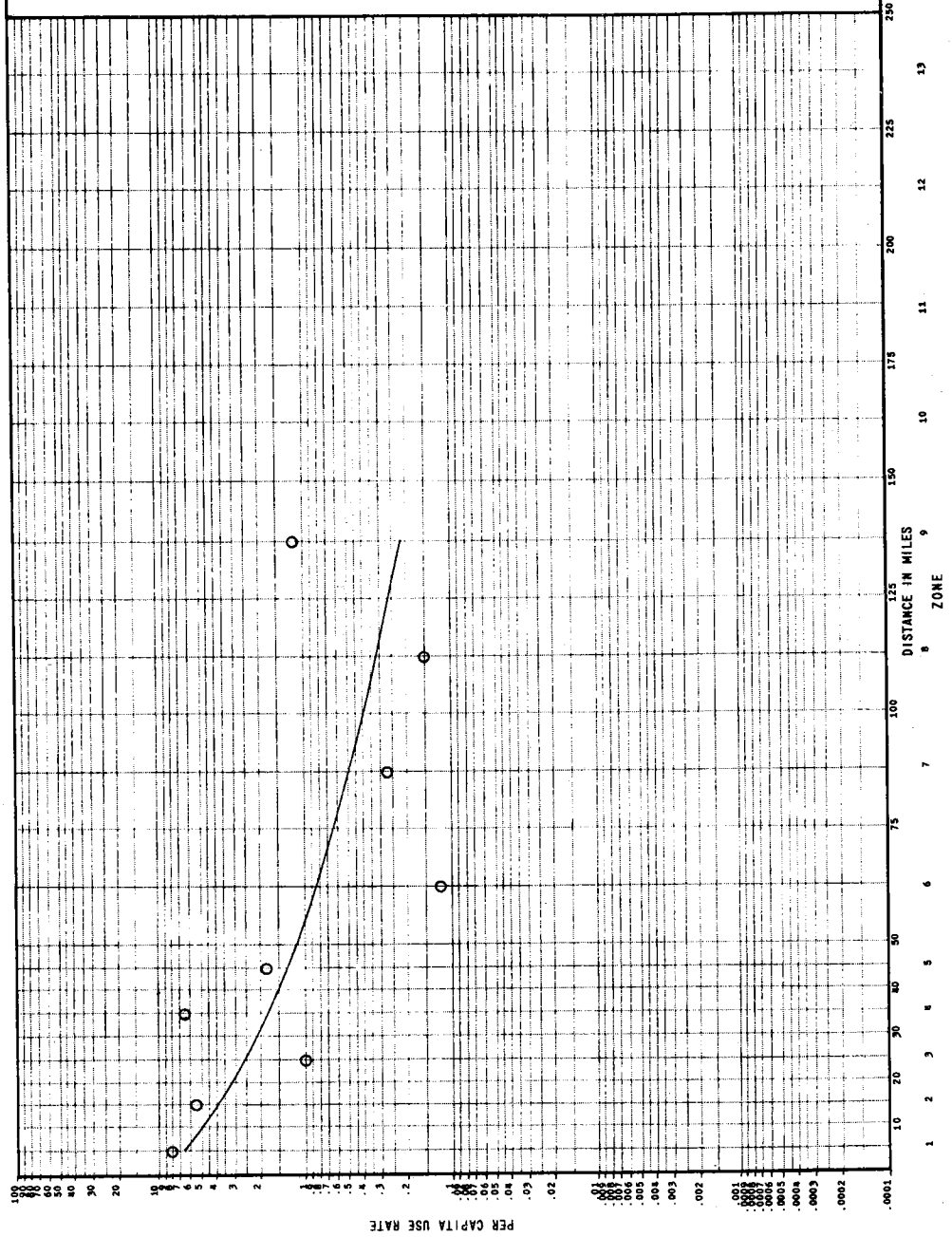
LEGEND

○ SURVEY ESTIMATE
— REGRESSION ESTIMATE

REGRESSION EQUATION:
 $Y = \text{Exp}(2.666516 - .359004 X^{.5})$
 $R^2 = .57$

| ZONE | PER CAPITA 1/ USE RATE | ZONAL 2/ POPULATION |
|------|---------------------------|------------------------|
| 1 | 6.4479 | 31,710 |
| 2 | 3.5826 | 33,590 |
| 3 | 2.3905 | 86,700 |
| 4 | 1.7205 | 33,730 |
| 5 | 1.2947 | 67,140 |
| 6 | .8423 | 734,960 |
| 7 | .5907 | 792,380 |
| 8 | .3194 | 555,480 |
| 9 | .2137 | 556,740 |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/ REGRESSION ESTIMATE
2/ ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1968

DISTRICT: TULSA
PROJECT: FALL RIVER

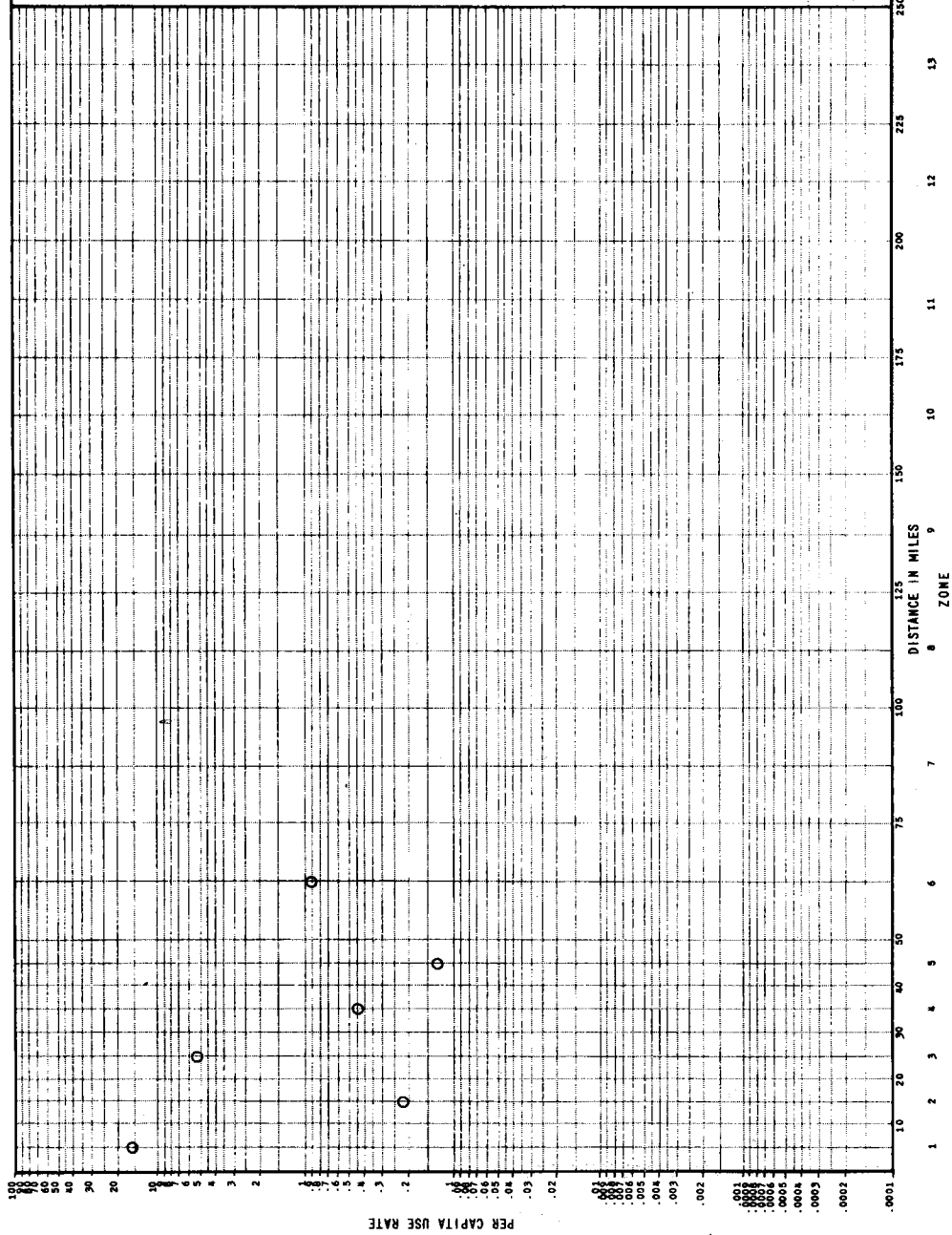
LEGEND

○ SURVEY ESTIMATE
— REGRESSION ESTIMATE
REGRESSION EQUATION:

$R^2 = .$

| ZONE | PER CAPITA USE RATE | ZONAL Σ / POPULATION |
|------|------------------------|--------------------------------|
| 1 | | 1,770 |
| 2 | | 8,410 |
| 3 | | 12,170 |
| 4 | | 28,130 |
| 5 | | 46,820 |
| 6 | | 247,500 |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/REGRESSION ESTIMATE
2/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1968

DISTRICT: TULSA
PROJECT: FORT GIBSON

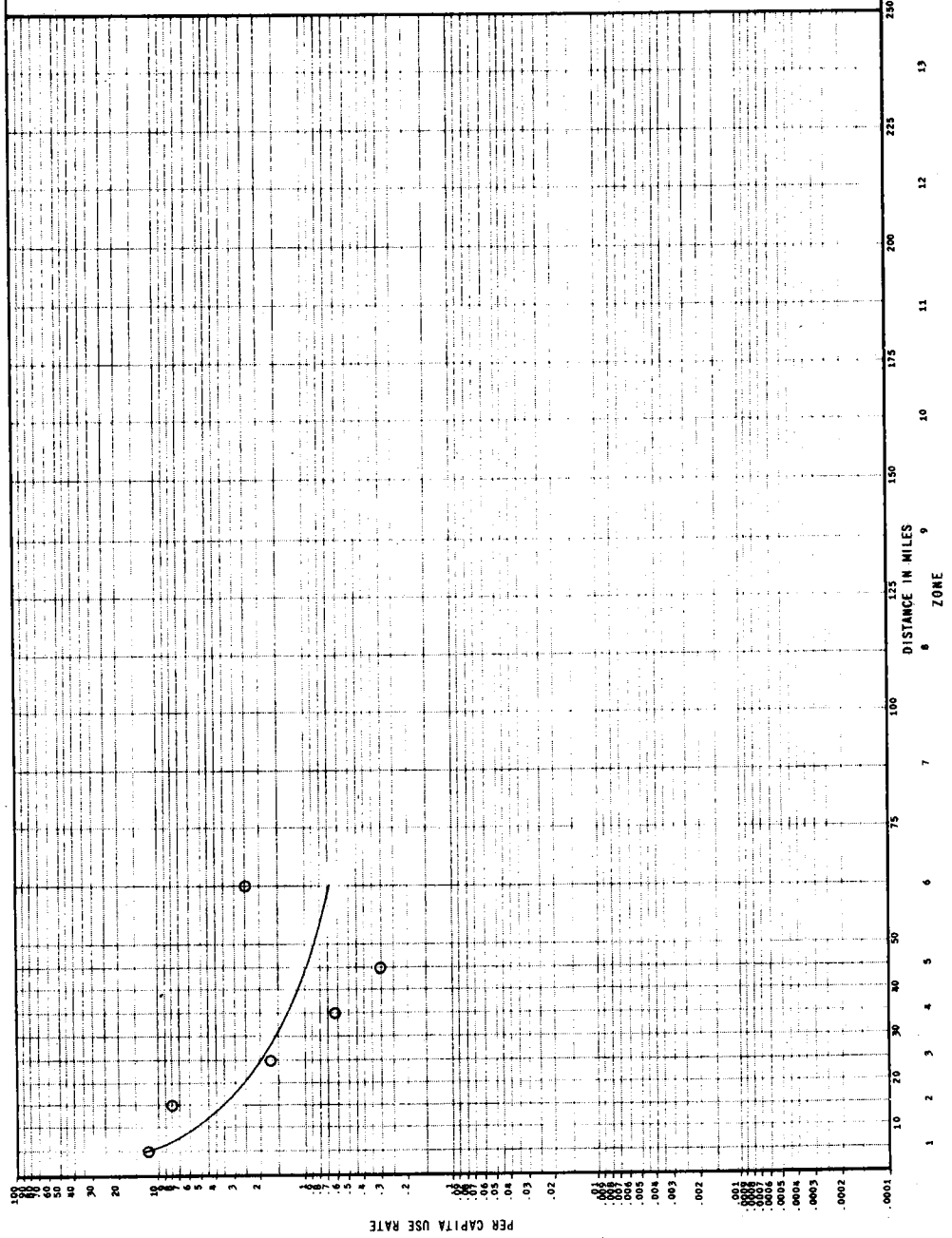
LEGEND

O SURVEY ESTIMATE
— REGRESSION ESTIMATE

REGRESSION EQUATION:
 $Y = \text{Exp}(4.436310 - 1.167177 \text{ LNX})$
 $R^2 = .77$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 12.9075 | 20,370 |
| 2 | 3.5806 | 65,280 |
| 3 | 1.9725 | 46,640 |
| 4 | 1.3319 | 182,370 |
| 5 | .9933 | 253,220 |
| 6 | .6769 | 384,200 |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/ REGRESSION ESTIMATE
2/ ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT RECREATION USE

PER CAPITA USE RATES 1966 - 1968

DISTRICT: TULSA

PROJECT: FORT SUPPLY

LEGEND

O SURVEY ESTIMATE

— REGRESSION ESTIMATE

REGRESSION EQUATION:

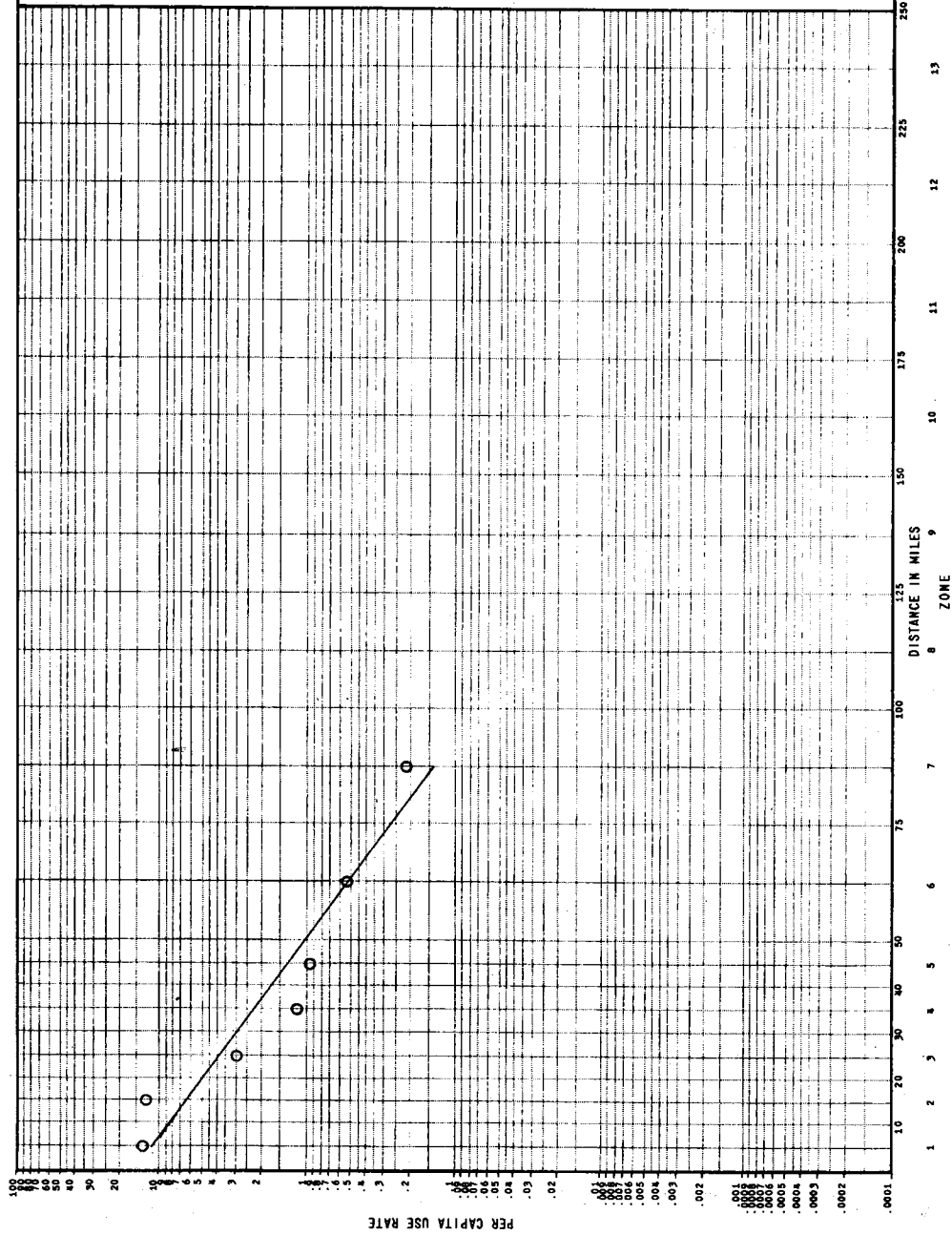
$$Y = \text{Exp}(2.682617 - .052696 X)$$

$$R^2 = .77$$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 11.2361 | 2,430 |
| 2 | 6.6337 | 9,790 |
| 3 | 3.9164 | 9,550 |
| 4 | 2.3122 | 5,360 |
| 5 | 1.3661 | 9,210 |
| 6 | .5428 | 29,660 |
| 7 | .1454 | 67,940 |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

— REGRESSION ESTIMATE

2/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES 1966 - 1968

DISTRICT: TULSA
PROJECT: GREAT SALT PLAINS

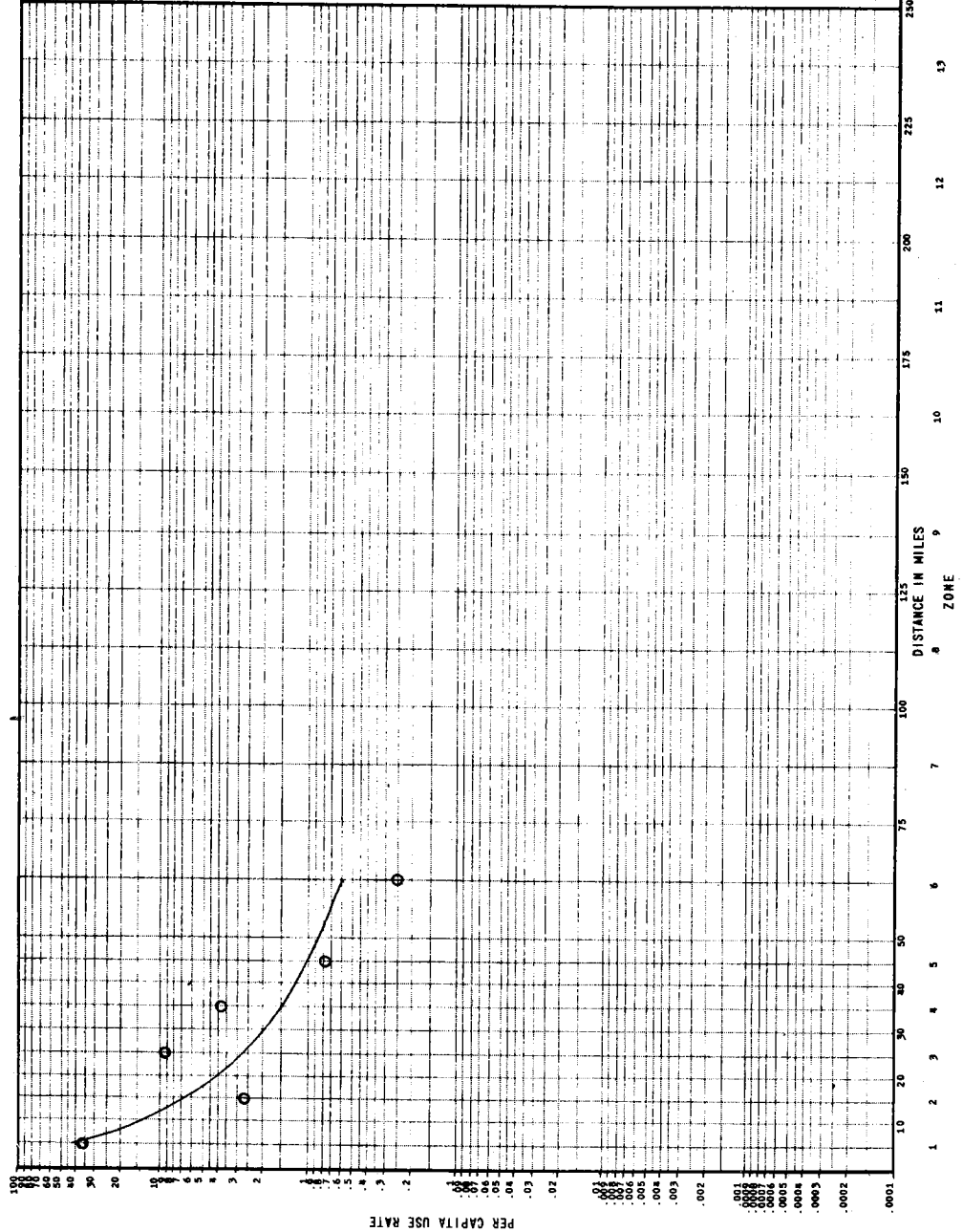
LEGEND

O SURVEY ESTIMATE
— REGRESSION ESTIMATE

REGRESSION EQUATION:
 $Y = \text{Exp}(6.435009 - 1.684743 \ln X)$
 $R^2 = .92$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 41.4098 | 1,100 |
| 2 | 6.5054 | 6,050 |
| 3 | 2.7512 | 9,500 |
| 4 | 1.5607 | 63,990 |
| 5 | 1.0220 | 18,600 |
| 6 | .5876 | 193,970 |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

J/REGRESSION ESTIMATE
Z/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION
ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1968

DISTRICT: TULSA
PROJECT: HEYBURN

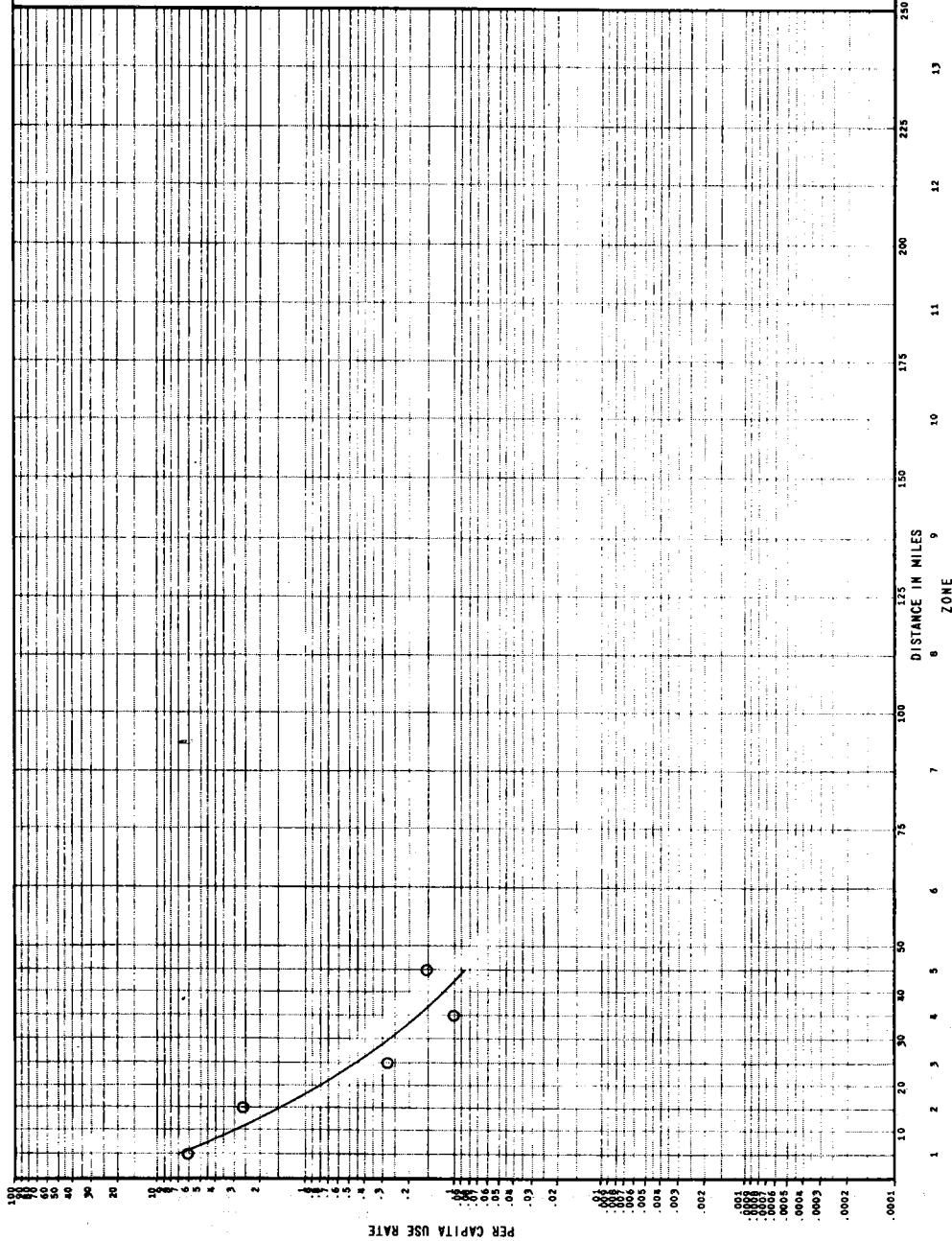
LEGEND

O SURVEY ESTIMATE
— REGRESSION ESTIMATE

REGRESSION EQUATION:
 $Y = \text{Exp}(4.143568 - .980157 X^{.5})$
 $R^2 = .93$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 7.0418 | 4,250 |
| 2 | 1.4154 | 51,900 |
| 3 | .4690 | 314,120 |
| 4 | .1911 | 86,490 |
| 5 | .0879 | 50,820 |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/REGRESSION ESTIMATE
2/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1968

DISTRICT: TULSA
PROJECT: HULAH

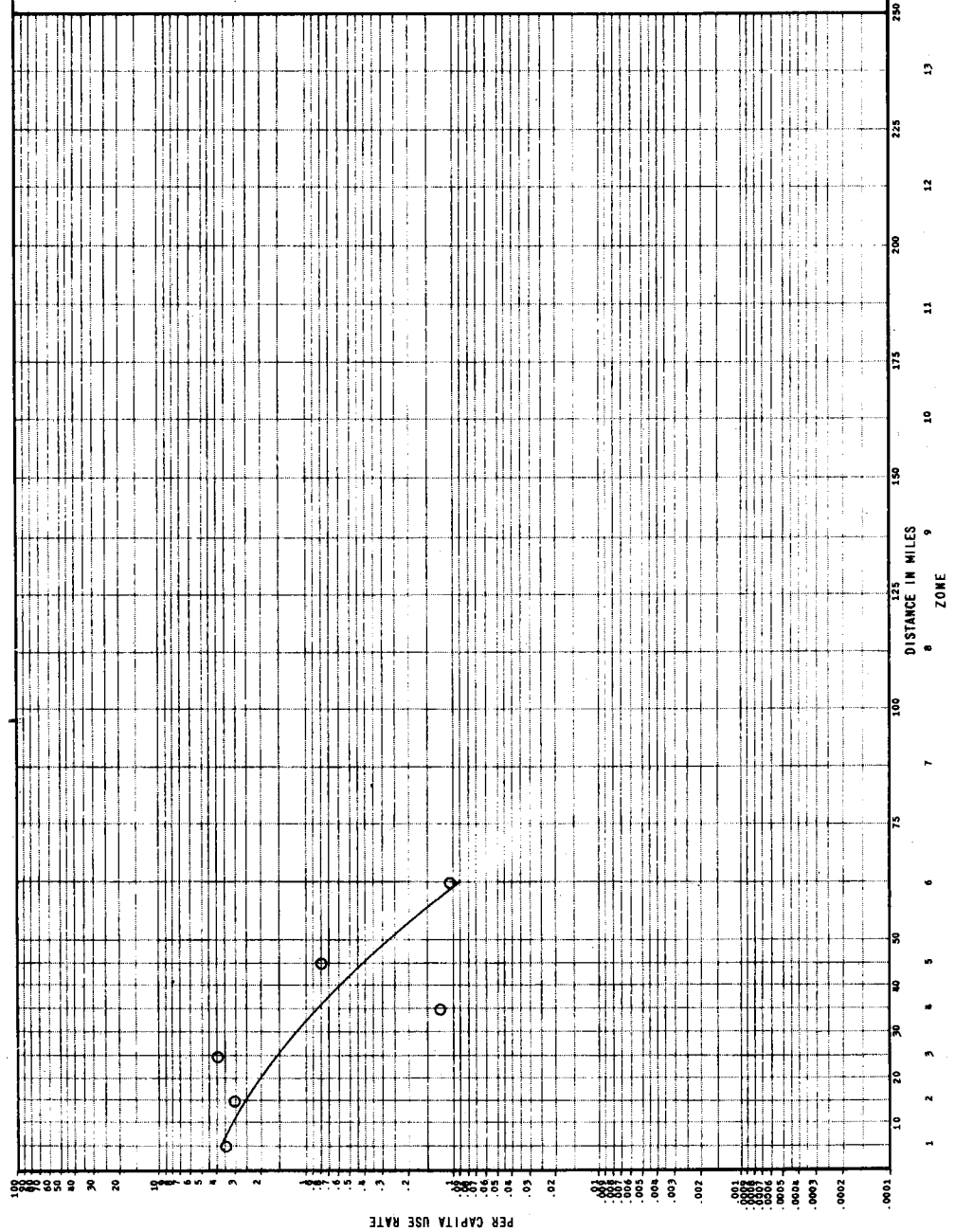
LEGEND

○ SURVEY ESTIMATE
— REGRESSION ESTIMATE

REGRESSION EQUATION:
 $Y = \text{Exp}(1.380609 - .007547 X^{1.5})$
 $R^2 = .56$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 3.6554 | 2,520 |
| 2 | 2.5654 | 19,220 |
| 3 | 1.5482 | 45,730 |
| 4 | .8333 | 51,600 |
| 5 | .4074 | 23,750 |
| 6 | .0955 | 350,600 |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/REGRESSION ESTIMATE
2/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION
ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1968

DISTRICT: TULSA
PROJECT: KEYSTONE

LEGEND

O SURVEY ESTIMATE
— REGRESSION ESTIMATE

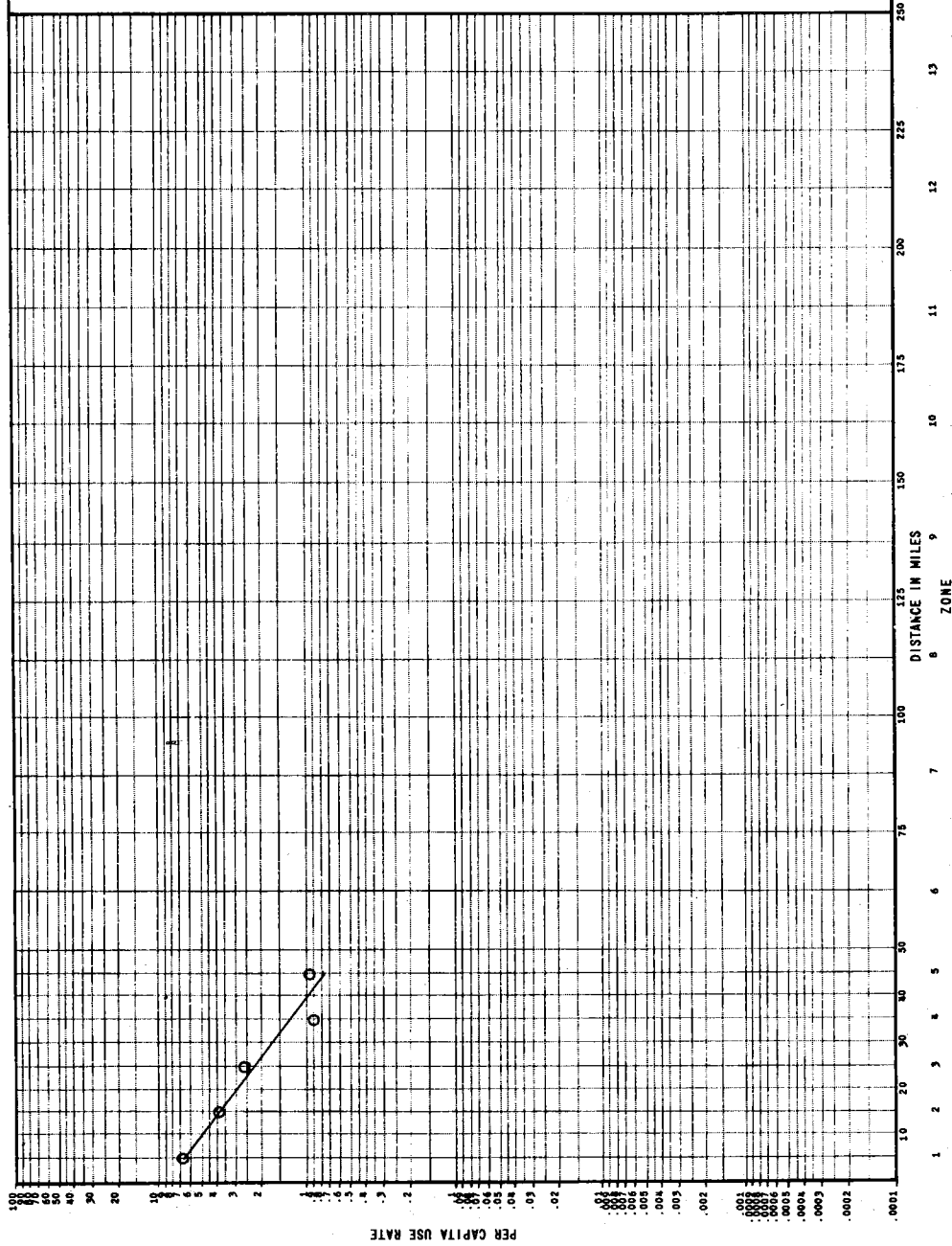
REGRESSION EQUATION:

$$Y = \text{Exp}(2.160956 - .053664 X)$$

$$R^2 = .98$$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 6.6368 | 28,950 |
| 2 | 3.8806 | 188,080 |
| 3 | 2.2690 | 187,520 |
| 4 | 1.3267 | 49,260 |
| 5 | .7757 | 92,820 |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/REGRESSION ESTIMATE
2/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT RECREATION USE

PER CAPITA USE RATES 1966 - 1968

DISTRICT: TULSA
PROJECT: OOLOGAH

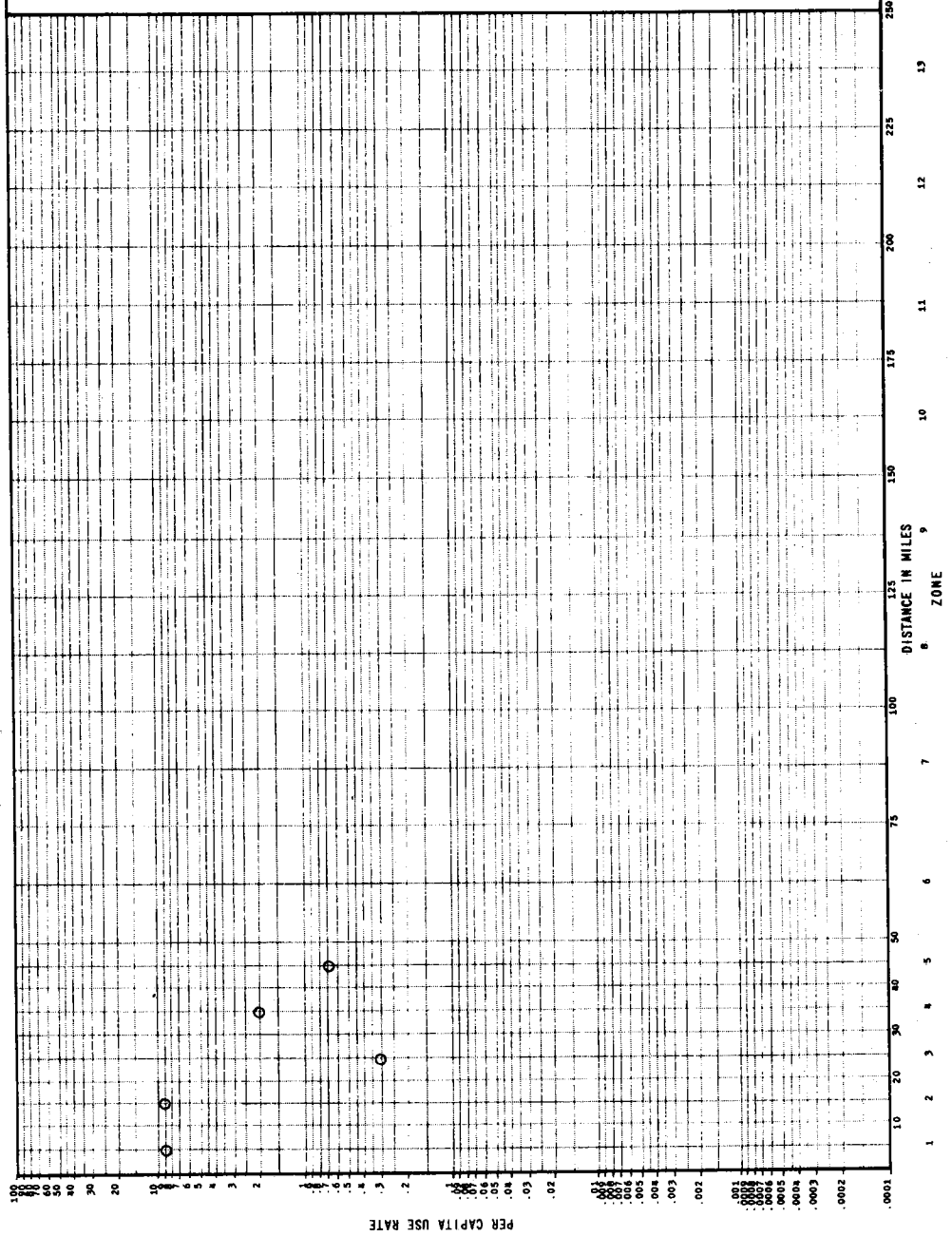
LEGEND

O SURVEY ESTIMATE
— REGRESSION ESTIMATE
REGRESSION EQUATION:

$$R^2 = .$$

| ZONE | PER CAPITA USE RATE | PER CAPITA USE RATE | POPULATION |
|------|------------------------|------------------------|------------|
| 1 | | | 12,840 |
| 2 | | | 28,800 |
| 3 | | | 217,760 |
| 4 | | | 222,820 |
| 5 | | | 92,980 |
| 6 | | | |
| 7 | | | |
| 8 | | | |
| 9 | | | |
| 10 | | | |
| 11 | | | |
| 12 | | | |
| 13 | | | |

1/REGRESSION ESTIMATE
2/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION
ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1968

DISTRICT: TULSA
PROJECT: TENKILLER

LEGEND

O SURVEY ESTIMATE
— REGRESSION ESTIMATE

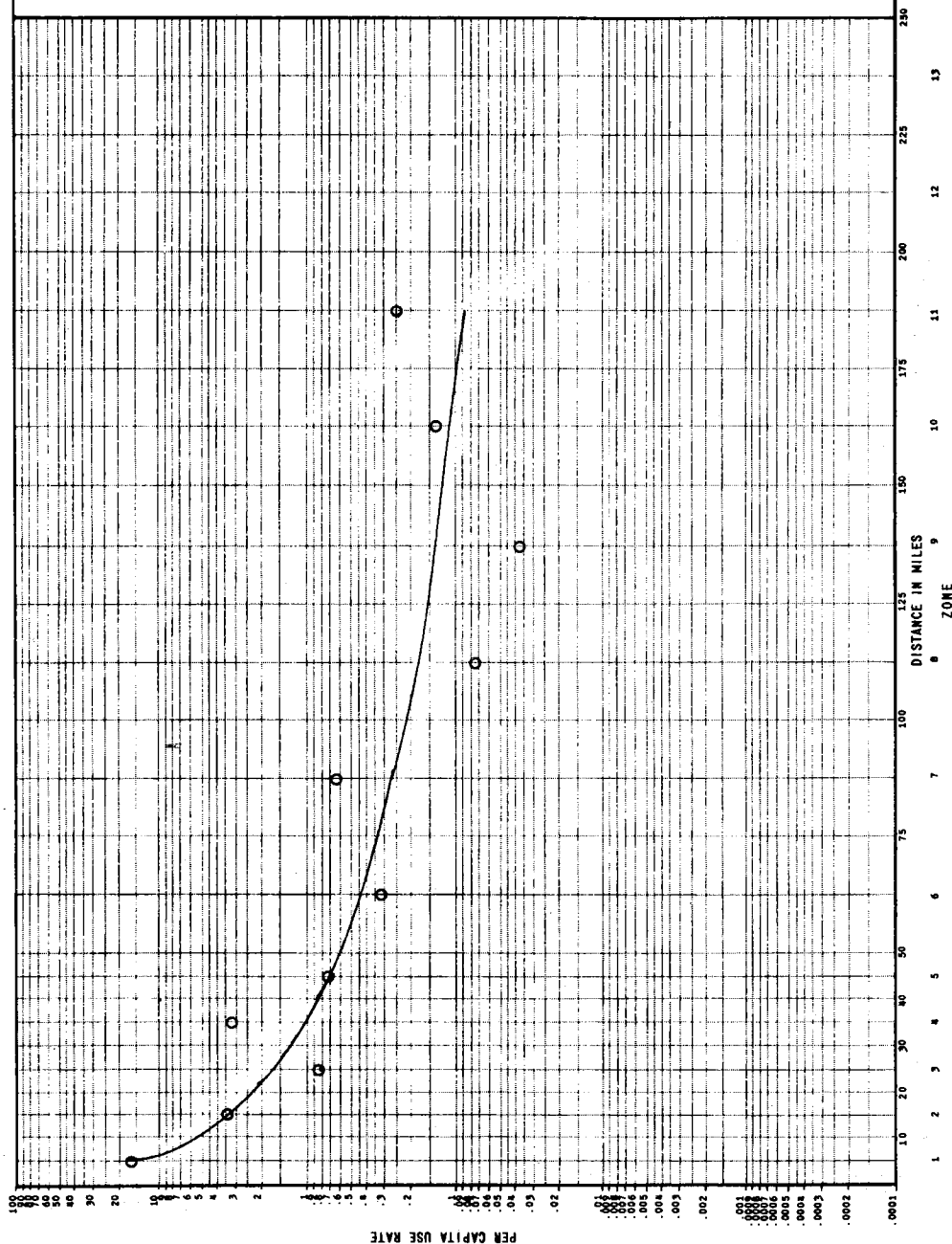
REGRESSION EQUATION:

$$Y = \text{Exp}(5.176455 - 1.450152 \text{ LNX})$$

$$R^2 = .98$$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 17.1590 | 6,580 |
| 2 | 3.4881 | 23,940 |
| 3 | 1.6630 | 62,510 |
| 4 | 1.0209 | 42,200 |
| 5 | .7091 | 97,360 |
| 6 | .4404 | 714,820 |
| 7 | .2703 | 298,100 |
| 8 | .1878 | 511,900 |
| 9 | .1404 | 794,100 |
| 10 | .1102 | 836,000 |
| 11 | .0895 | 859,600 |
| 12 | | |
| 13 | | |

1/ REGRESSION ESTIMATE
2/ ESTIMATED 1965 POPULATION



ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1968

DISTRICT: TULSA
PROJECT: TORONTO

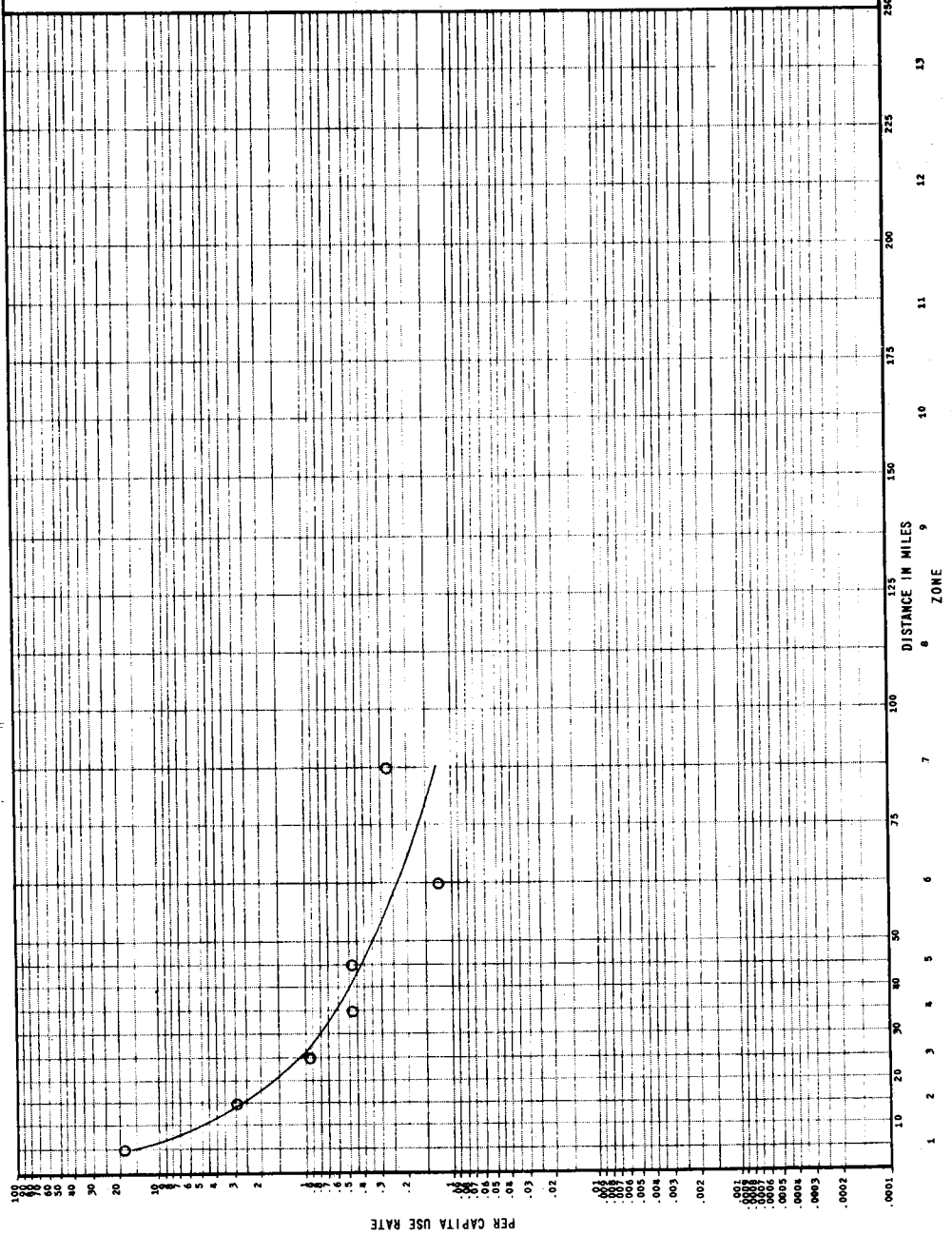
LEGEND

O SURVEY ESTIMATE
— REGRESSION ESTIMATE

REGRESSION EQUATION:
 $Y = \text{Exp}(5.470132 - 1.666687 \text{ LNX})$
 $R^2 = .99$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 16.2436 | 1,850 |
| 2 | 2.6030 | 14,240 |
| 3 | 1.1110 | 16,990 |
| 4 | .6341 | 35,290 |
| 5 | .4171 | 47,180 |
| 6 | .2413 | 144,710 |
| 7 | .1377 | 418,600 |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/ REGRESSION ESTIMATE
2/ ESTIMATED 1968 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1968

DISTRICT: TULSA
PROJECT: WISTER

LEGEND

O SURVEY ESTIMATE
— REGRESSION ESTIMATE

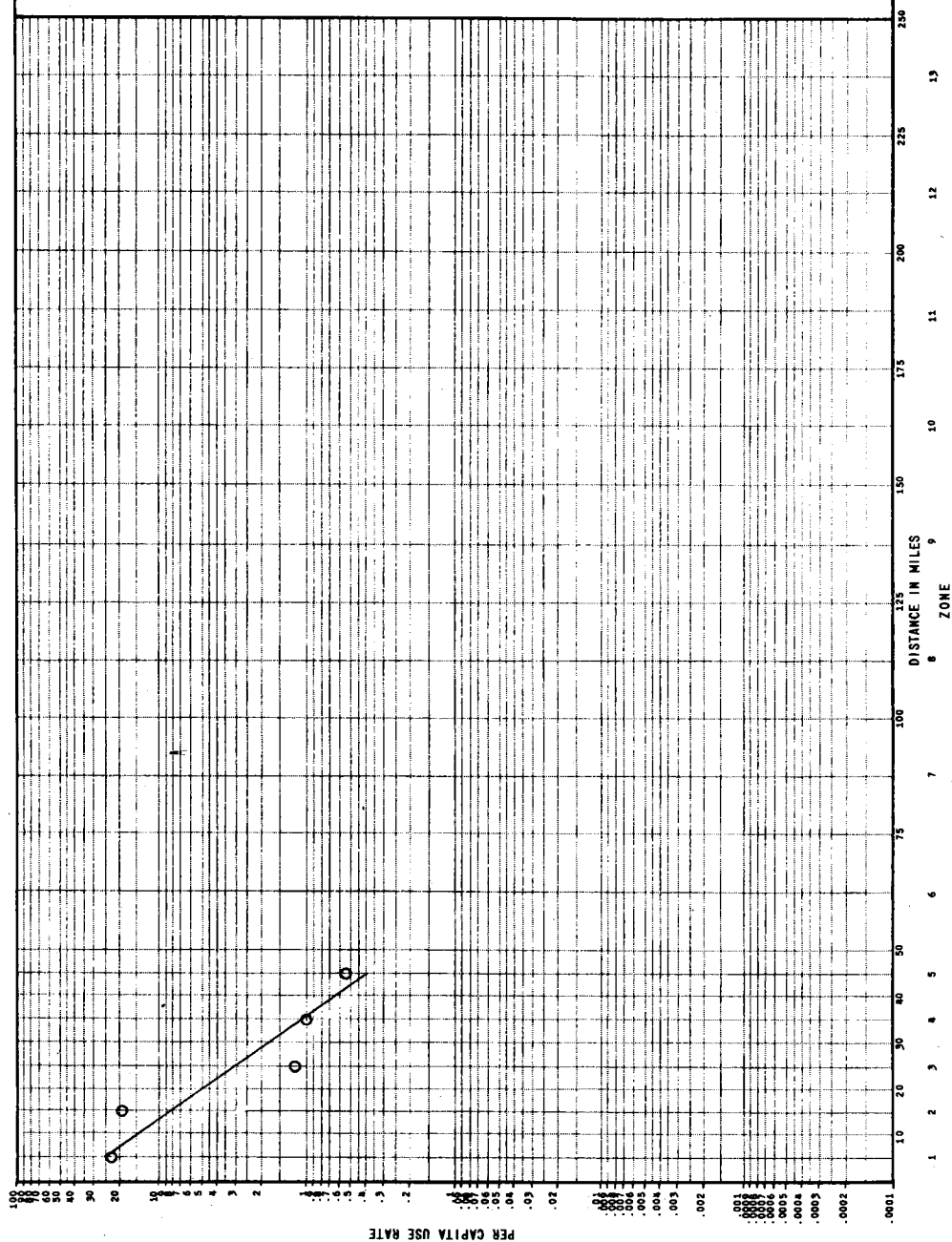
REGRESSION EQUATION:

$$Y = \text{Exp}(3.732665 - .103347 X)$$

$$R^2 = .77$$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 24.9264 | 6,520 |
| 2 | 8.8680 | 11,520 |
| 3 | 3.1549 | 15,800 |
| 4 | 1.1224 | 30,720 |
| 5 | .3993 | 81,930 |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/REGRESSION ESTIMATE
2/ESTIMATED 1965 POPULATION



**TECHNICAL REPORT No. 2
OCTOBER 1969**

PLAN FORMULATION AND EVALUATION STUDIES-RECREATION

**estimating
initial
reservoir
recreation
use**

APPENDIX C

**RECREATION-USE
DATA SUMMARIES**

RECREATION USE DATA SUMMARIES

List of Districts

| <u>District</u> | | <u>Page No.</u> | <u>District</u> | | <u>Page No.</u> |
|-----------------|------|-----------------|-----------------|------|-----------------|
| Fort Worth | 1966 | C-5 and C-6 | Sacramento | 1964 | C-20 |
| | 1967 | C-7 and C-8 | | 1965 | C-21 |
| | 1968 | C-9 and C-10 | | 1966 | C-22 |
| Little Rock | 1966 | C-11 | Savannah | 1967 | C-23 |
| | 1967 | C-12 | | 1968 | C-24 |
| | 1968 | C-13 | | 1966 | C-25 |
| Nashville | 1966 | C-14 | Tulsa | 1967 | C-26 |
| | 1967 | C-15 | | 1968 | C-27 |
| | 1968 | C-16 | | 1966 | C-28 and C-29 |
| Portland | 1966 | C-17 | | 1967 | C-30 and C-31 |
| | 1967 | C-18 | | 1968 | C-32 and C-33 |
| | 1968 | C-19 | | | |

PLAN FORMULATION STUDIES - RECREATION RECREATION USE DATA SUMMARY

| PROJECT | NO. OF PERSONS SURVEYED | | | | % OF VISITORS ON WEEKEND | | | | NO. OF PERSONS PER VEHICLE | | | | % OF VEHICLES WITH BOAT-TRAILER | | | | % OF VEHICLES WITH HOUSE-TRAILER | | | | FISHING (%) | | | |
|---------------------|-------------------------|-------|-------|-------|--------------------------|----|----|-----|----------------------------|--------|-----|-----|---------------------------------|--------|----|-----|----------------------------------|--------|----|-----|-------------|--------|----|----|
| | SUM | | FALL | | TOTAL | | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| BELTON | 927 | 626 | 150 | 1,703 | 78 | 74 | 76 | 76 | 2.8 | 3.1 | 2.4 | 2.8 | 14 | 22 | 28 | 20 | 0 | 1 | 0 | 0 | 46 | 35 | 57 | 45 |
| BENBROOK | 1,189 | 1,634 | 751 | 3,574 | 74 | 64 | 69 | 69 | 2.3 | 2.8 | 2.1 | 2.4 | 22 | 28 | 19 | 24 | 1 | 0 | 1 | 1 | 68 | 35 | 63 | 54 |
| CANYON | 5,049 | 1,671 | 1,277 | 7,997 | 80 | 71 | 73 | 76 | 3.4 | 3.3 | 2.7 | 3.2 | 23 | 21 | 31 | 24 | 0 | 1 | 1 | 0 | 42 | 38 | 54 | 43 |
| DAM B | 899 | 749 | 238 | 1,906 | 75 | 56 | 67 | 67 | 3.2 | 3.4 | 2.4 | 3.1 | 5 | 5 | 7 | 5 | 1 | 1 | 0 | 1 | 40 | 47 | 48 | 44 |
| GARZA-LITTLE ELM | 1,754 | 1,455 | 408 | 3,617 | 79 | 65 | 76 | 73 | 2.8 | 3.0 | 2.2 | 2.8 | 17 | 41 | 13 | 26 | 0 | 1 | 1 | 1 | 35 | 22 | 38 | 30 |
| GRAPEVINE | 3,098 | 2,484 | 1,002 | 6,584 | 74 | 57 | 69 | 67 | 2.6 | 3.0 | 2.1 | 2.6 | 24 | 22 | 20 | 23 | 1 | 0 | 1 | 1 | 44 | 15 | 47 | 34 |
| HORDS CREEK | 334 | 498 | 105 | 937 | 73 | 55 | 59 | 62 | 2.8 | 3.3 | 2.4 | 2.9 | 18 | 21 | 25 | 20 | 2 | 8 | 5 | 5 | 43 | 35 | 68 | 43 |
| LAVON | 2,788 | 1,952 | 1,518 | 6,258 | 71 | 63 | 64 | 67 | 3.1 | 3.1 | 2.8 | 3.0 | 18 | 22 | 22 | 20 | 0 | 0 | 0 | 0 | 32 | 26 | 31 | 30 |
| NAVARRO MILLS | 1,840 | 850 | 393 | 3,083 | 79 | 66 | 77 | 75 | 3.0 | 2.8 | 2.3 | 2.8 | 21 | 26 | 27 | 23 | 2 | 0 | 1 | 1 | 53 | 39 | 46 | 48 |
| PROCTOR | 1,460 | 706 | 253 | 2,419 | 63 | 63 | 53 | 62 | 3.4 | 3.2 | 2.6 | 3.2 | 18 | 35 | 31 | 25 | 1 | 1 | 3 | 1 | 46 | 37 | 69 | 46 |
| SAN ANGELO | 837 | 427 | 321 | 1,585 | 59 | 57 | 53 | 57 | 2.6 | 2.4 | 2.0 | 2.4 | 7 | 8 | 2 | 6 | 1 | 0 | 0 | 0 | 26 | 30 | 19 | 25 |
| WHITNEY | 900 | 538 | 466 | 1,904 | 60 | 55 | 55 | 57 | 2.9 | 3.4 | 2.5 | 2.9 | 15 | 25 | 12 | 17 | 0 | 0 | 0 | 0 | 62 | 56 | 51 | 57 |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| DISTRICT WT AVERAGE | | | | | 74 | 62 | 67 | 67 | 2.9 | 3.0 | 2.4 | 2.8 | 19 | 24 | 21 | 21 | 1 | 1 | 1 | 1 | 43 | 30 | 47 | 39 |

| PROJECT | PICKICKING (%) | | | | SWIMMING (%) | | | | WATER SKIING (%) | | | | PLEASURE BOATING (%) | | | | SIGHTSEEING (%) | | | | OTHERS (%) | | | |
|---------------------|----------------|-----|------|--------|--------------|-----|------|--------|------------------|-----|------|--------|----------------------|-----|------|--------|-----------------|-----|------|--------|------------|-----|------|--------|
| | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| BELTON | 27 | 18 | 15 | 22 | 0 | 33 | 0 | 10 | 0 | 11 | 0 | 3 | 3 | 6 | 0 | 3 | 35 | 16 | 30 | 28 | 3 | 4 | 4 | 4 |
| BENBROOK | 14 | 12 | 6 | 11 | 1 | 20 | 0 | 8 | 0 | 11 | 0 | 4 | 2 | 10 | 1 | 5 | 18 | 12 | 25 | 17 | 1 | 5 | 6 | 4 |
| CANYON | 33 | 27 | 29 | 31 | 4 | 22 | 0 | 7 | 4 | 14 | 2 | 6 | 6 | 6 | 3 | 5 | 33 | 27 | 27 | 31 | 4 | 2 | 4 | 4 |
| DAM B | 27 | 9 | 4 | 16 | 0 | 11 | 0 | 4 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 1 | 36 | 32 | 25 | 33 | 2 | 6 | 7 | 4 |
| GARZA-LITTLE ELM | 23 | 29 | 8 | 23 | 0 | 23 | 0 | 9 | 2 | 30 | 1 | 13 | 11 | 24 | 13 | 16 | 31 | 10 | 32 | 23 | 6 | 3 | 7 | 5 |
| GRAPEVINE | 16 | 24 | 14 | 18 | 2 | 41 | 2 | 16 | 3 | 22 | 1 | 9 | 10 | 14 | 9 | 11 | 17 | 13 | 18 | 16 | 11 | 11 | 18 | 12 |
| HORDS CREEK | 24 | 42 | 28 | 33 | 0 | 36 | 0 | 17 | 2 | 15 | 0 | 8 | 3 | 6 | 3 | 4 | 26 | 4 | 10 | 13 | 2 | 1 | 6 | 2 |
| LAVON | 18 | 21 | 22 | 20 | 2 | 32 | 0 | 11 | 3 | 10 | 0 | 4 | 10 | 10 | 11 | 10 | 24 | 10 | 13 | 17 | 17 | 14 | 21 | 17 |
| NAVARRO MILLS | 32 | 15 | 16 | 25 | 0 | 17 | 0 | 5 | 0 | 8 | 0 | 2 | 1 | 4 | 0 | 2 | 25 | 31 | 39 | 29 | 1 | 0 | 1 | 1 |
| PROCTOR | 15 | 27 | 35 | 21 | 0 | 42 | 0 | 13 | 1 | 38 | 0 | 12 | 2 | 2 | 4 | 2 | 33 | 13 | 18 | 25 | 0 | 1 | 2 | 1 |
| SAN ANGELO | 11 | 7 | 3 | 8 | 1 | 31 | 0 | 9 | 0 | 9 | 0 | 3 | 6 | 1 | 0 | 3 | 53 | 37 | 72 | 53 | 4 | 8 | 6 | 6 |
| WHITNEY | 31 | 7 | 8 | 18 | 0 | 65 | 0 | 17 | 0 | 21 | 0 | 5 | 1 | 1 | 0 | 1 | 17 | 8 | 29 | 18 | 2 | 2 | 1 | 2 |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| DISTRICT WT AVERAGE | 23 | 21 | 16 | 21 | 2 | 30 | 0 | 10 | 2 | 16 | 0 | 6 | 6 | 10 | 5 | 7 | 27 | 16 | 26 | 23 | 6 | 6 | 10 | 6 |

| PLAN FORMULATION STUDIES - RECREATION | | | | | | | | | | | | RECREATION USE DATA SUMMARY | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------|------------------------|-----|------|----|-----|--|---------------------|-----|------|----|-----|-----------------------------|--|-----|------|----|-----|--|---|-----|------|-----|-----|--|--|-----|------|-----|-----|--|-----|-----|-----|-----|--|
| PROJECT | CAMPING ON PROJECT (%) | | | | | | STAYING IN AREA (%) | | | | | | CAMPING ON PROJ. AND STAYING IN AREA (%) | | | | | | AVG. DURATION OF VISIT STAYING IN AREA (Days) | | | | | | AVG. DURATION OF VISIT DAY USE (Hours) | | | | | | | | | | |
| | SP | SUM | FALL | WT | AVG | | SP | SUM | FALL | WT | AVG | | SP | SUM | FALL | WT | AVG | | SP | SUM | FALL | WT | AVG | | SP | SUM | FALL | WT | AVG | | | | | | |
| BELTON | 1 | 7 | 2 | 3 | | | 1 | 3 | 0 | 1 | | | 2 | 10 | 2 | 4 | | | 2.0 | 3.8 | 2.5 | 2.7 | | | 2.0 | 5.7 | 0.0 | 3.4 | | | 3.2 | 3.9 | 4.3 | 3.7 | |
| BENBROOK | 3 | 16 | 4 | 8 | | | 0 | 0 | 1 | 0 | | | 3 | 16 | 5 | 8 | | | 2.4 | 3.9 | 2.2 | 2.9 | | | 0.0 | 0.0 | 2.0 | 2.0 | | | 3.5 | 3.8 | 3.0 | 3.5 | |
| CANYON | 2 | 19 | 7 | 6 | | | 0 | 1 | 2 | 1 | | | 2 | 20 | 9 | 7 | | | 2.4 | 2.5 | 5.3 | 3.0 | | | 0.0 | 3.7 | 5.3 | 4.5 | | | 3.7 | 3.6 | 3.8 | 3.7 | |
| DAM B | 7 | 14 | 1 | 9 | | | 1 | 24 | 5 | 10 | | | 8 | 38 | 6 | 19 | | | 2.3 | 2.3 | 4.0 | 2.6 | | | 3.7 | 5.3 | 3.2 | 4.2 | | | 3.3 | 3.2 | 3.4 | 3.3 | |
| GARZA-LITTLE ELM | 2 | 7 | 4 | 4 | | | 1 | 0 | 0 | 0 | | | 3 | 7 | 4 | 4 | | | 2.3 | 2.3 | 2.2 | 2.3 | | | 2.0 | 0.0 | 0.0 | 2.0 | | | 2.7 | 3.7 | 2.6 | 3.1 | |
| GRAPEVINE | 6 | 10 | 9 | 8 | | | 0 | 0 | 0 | 0 | | | 6 | 10 | 9 | 8 | | | 3.6 | 3.2 | 2.0 | 3.2 | | | 0.0 | 0.0 | 0.0 | 0.0 | | | 3.1 | 3.1 | 2.8 | 3.0 | |
| HORDS CREEK | 11 | 31 | 16 | 21 | | | 0 | 6 | 0 | 3 | | | 11 | 37 | 16 | 24 | | | 2.7 | 2.6 | 2.9 | 2.6 | | | 0.0 | 3.4 | 0.0 | 3.4 | | | 4.1 | 4.5 | 3.6 | 4.1 | |
| LAVON | 11 | 3 | 7 | 7 | | | 0 | 2 | 0 | 1 | | | 11 | 5 | 7 | 8 | | | 2.0 | 2.3 | 2.4 | 2.1 | | | 2.0 | 3.5 | 0.0 | 2.6 | | | 3.6 | 4.1 | 4.1 | 3.8 | |
| NAVARRO MILLS | 9 | 11 | 4 | 9 | | | 1 | 3 | 0 | 1 | | | 10 | 14 | 4 | 10 | | | 2.9 | 3.0 | 2.2 | 2.8 | | | 2.3 | 2.0 | 0.0 | 2.2 | | | 4.5 | 4.8 | 2.6 | 4.3 | |
| PROCTOR | 8 | 25 | 3 | 12 | | | 4 | 2 | 0 | 3 | | | 12 | 27 | 3 | 15 | | | 3.4 | 3.5 | 2.2 | 3.3 | | | 3.1 | 2.0 | 0.0 | 2.7 | | | 3.5 | 3.6 | 3.9 | 3.6 | |
| SAN ANGELO | 6 | 4 | 1 | 4 | | | 3 | 5 | 3 | 3 | | | 9 | 9 | 4 | 7 | | | 2.1 | 2.4 | 2.0 | 2.1 | | | 2.2 | 3.7 | 2.2 | 2.6 | | | 2.0 | 2.7 | 2.2 | 2.2 | |
| WHITNEY | 9 | 50 | 3 | 18 | | | 7 | 1 | 6 | 5 | | | 16 | 51 | 9 | 23 | | | 2.6 | 2.8 | 2.8 | 2.7 | | | 5.9 | 3.0 | 3.2 | 4.4 | | | 4.0 | 4.1 | 3.7 | 3.9 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DISTRICT WT AVERAGE | 6 | 13 | 6 | 8 | | | 1 | 2 | 1 | 1 | | | 7 | 15 | 7 | 9 | | | 2.6 | 2.9 | 2.8 | 2.7 | | | 2.6 | 3.5 | 3.5 | 3.0 | | | 3.5 | 3.7 | 3.4 | 3.5 | |

DISTRICT: FORT WORTH

YEAR: 1966

| PLAN FORMULATION STUDIES - RECREATION | | | | | | | | | | | | | | RECREATION USE DATA SUMMARY | | | | | | | | | | | | | |
|---------------------------------------|-------------------------|-------|-------|-------|--------------------------|-----|------|--------|----------------------------|-----|------|--------|---------------------------------|-----------------------------|------|--------|----------------------------------|-----|------|--------|-------------|-----|------|--------|--|--|--|
| PROJECT | NO. OF PERSONS SURVEYED | | | | % OF VISITORS ON WEEKEND | | | | NO. OF PERSONS PER VEHICLE | | | | % OF VEHICLES WITH BOAT-TRAILER | | | | % OF VEHICLES WITH HOUSE-TRAILER | | | | FISHING (%) | | | | | | |
| | SP | SUM | FALL | TOTAL | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | | | |
| BELTON | 839 | 663 | 347 | 1,849 | 74 | 69 | 64 | 70 | 2.5 | 2.6 | 2.3 | 2.5 | 21 | 23 | 23 | 22 | 0 | 2 | 1 | 1 | 45 | 44 | 45 | 45 | | | |
| BENBROOK | 2,206 | 1,733 | 1,192 | 5,131 | 72 | 72 | 63 | 70 | 2.4 | 2.7 | 2.1 | 2.4 | 26 | 27 | 23 | 26 | 1 | 1 | 1 | 1 | 63 | 37 | 58 | 54 | | | |
| CANYON | 3,516 | 3,497 | 1,448 | 8,461 | 82 | 64 | 72 | 73 | 3.1 | 3.4 | 2.7 | 3.2 | 22 | 24 | 22 | 23 | 1 | 1 | 1 | 1 | 59 | 38 | 42 | 47 | | | |
| DAM B | 820 | 597 | 412 | 1,829 | 78 | 52 | 53 | 64 | 2.9 | 2.8 | 2.5 | 2.8 | 7 | 12 | 9 | 9 | 3 | 2 | 3 | 3 | 56 | 36 | 53 | 48 | | | |
| GARZA-LITTLE ELM | 1,382 | 1,570 | 699 | 3,651 | 80 | 72 | 76 | 76 | 2.7 | 3.0 | 2.3 | 2.8 | 23 | 38 | 28 | 30 | 0 | 0 | 1 | 0 | 50 | 24 | 48 | 39 | | | |
| GRAPEVINE | 2,522 | 2,900 | 966 | 6,388 | 68 | 68 | 70 | 68 | 2.5 | 3.1 | 2.2 | 2.8 | 18 | 23 | 23 | 21 | 0 | 1 | 0 | 0 | 55 | 22 | 45 | 39 | | | |
| HORDS CREEK | 372 | 414 | 126 | 912 | 74 | 60 | 50 | 64 | 3.1 | 3.0 | 2.3 | 3.0 | 22 | 18 | 29 | 21 | 8 | 3 | 6 | 6 | 61 | 29 | 69 | 49 | | | |
| LAVON | 2,132 | 1,908 | 1,186 | 5,226 | 77 | 70 | 75 | 74 | 3.0 | 3.1 | 2.7 | 3.0 | 24 | 26 | 22 | 24 | 0 | 1 | 1 | 1 | 47 | 26 | 28 | 35 | | | |
| NAVARRO MILLS | 1,338 | 1,276 | 970 | 3,584 | 66 | 69 | 56 | 64 | 2.9 | 3.2 | 2.7 | 3.0 | 30 | 29 | 42 | 33 | 1 | 2 | 0 | 1 | 48 | 31 | 58 | 45 | | | |
| PROCTOR | 1,129 | 939 | 265 | 2,333 | 71 | 61 | 53 | 65 | 2.9 | 3.2 | 2.6 | 3.0 | 19 | 30 | 28 | 24 | 3 | 3 | 2 | 3 | 59 | 38 | 58 | 51 | | | |
| SAN ANGELO | 320 | 374 | 265 | 959 | 54 | 55 | 71 | 59 | 2.4 | 2.4 | 2.2 | 2.4 | 5 | 3 | 7 | 5 | 0 | 2 | 2 | 1 | 35 | 33 | 30 | 33 | | | |
| WHITNEY | 676 | 1,172 | 381 | 2,229 | 60 | 70 | 64 | 65 | 2.6 | 3.5 | 2.7 | 3.1 | 18 | 26 | 20 | 22 | 0 | 3 | 1 | 1 | 76 | 51 | 64 | 61 | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DISTRICT WT AVERAGE | | | | | 73 | 67 | 67 | 70 | 2.8 | 3.2 | 2.5 | 2.9 | 21 | 25 | 24 | 23 | 1 | 1 | 1 | 1 | 55 | 32 | 47 | 45 | | | |

| PROJECT | PICKICKING (%) | | | | SWIMMING (%) | | | | WATER SKIING (%) | | | | PLEASURE BOATING (%) | | | | SIGHTSEEING (%) | | | | OTHERS (%) | | | |
|---------------------|----------------|-----|------|--------|--------------|-----|------|--------|------------------|-----|------|--------|----------------------|-----|------|--------|-----------------|-----|------|--------|------------|-----|------|--------|
| | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG |
| BELTON | 19 | 20 | 13 | 18 | 10 | 30 | 0 | 15 | 5 | 10 | 0 | 6 | 4 | 4 | 2 | 4 | 25 | 25 | 33 | 27 | 12 | 3 | 6 | 8 |
| BENBROOK | 10 | 18 | 8 | 12 | 4 | 13 | 0 | 6 | 2 | 12 | 0 | 4 | 6 | 9 | 6 | 7 | 16 | 13 | 21 | 16 | 2 | 1 | 3 | 2 |
| CANYON | 27 | 22 | 17 | 23 | 9 | 27 | 1 | 14 | 5 | 14 | 1 | 8 | 5 | 6 | 7 | 6 | 22 | 30 | 33 | 27 | 2 | 3 | 5 | 3 |
| DAM B | 13 | 8 | 8 | 10 | 4 | 6 | 0 | 4 | 3 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 26 | 40 | 36 | 33 | 7 | 11 | 3 | 7 |
| GARZA-LITTLE ELM | 32 | 26 | 21 | 28 | 4 | 17 | 0 | 8 | 7 | 19 | 0 | 10 | 9 | 29 | 19 | 19 | 13 | 5 | 12 | 9 | 0 | 1 | 9 | 2 |
| GRAPEVINE | 18 | 25 | 12 | 20 | 7 | 37 | 0 | 18 | 6 | 20 | 0 | 11 | 7 | 10 | 9 | 9 | 12 | 10 | 16 | 12 | 12 | 9 | 18 | 12 |
| HORDS CREEK | 24 | 32 | 31 | 29 | 7 | 29 | 0 | 16 | 9 | 14 | 0 | 9 | 0 | 3 | 3 | 2 | 9 | 15 | 16 | 13 | 5 | 1 | 2 | 3 |
| LAVON | 17 | 22 | 21 | 20 | 4 | 19 | 0 | 8 | 5 | 4 | 0 | 3 | 10 | 18 | 13 | 14 | 12 | 12 | 18 | 13 | 10 | 13 | 23 | 15 |
| NAVARRO MILLS | 28 | 37 | 16 | 27 | 6 | 22 | 0 | 9 | 4 | 9 | 0 | 5 | 2 | 8 | 1 | 4 | 18 | 20 | 25 | 20 | 9 | 1 | 0 | 4 |
| PROCTOR | 29 | 22 | 26 | 26 | 13 | 34 | 0 | 19 | 5 | 21 | 2 | 10 | 2 | 7 | 6 | 5 | 14 | 18 | 26 | 17 | 1 | 0 | 1 | 1 |
| SAN ANGELO | 7 | 9 | 8 | 8 | 3 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 55 | 50 | 50 | 52 | 0 | 3 | 9 | 4 |
| WHITNEY | 7 | 17 | 4 | 11 | 5 | 51 | 0 | 25 | 1 | 15 | 0 | 7 | 1 | 1 | 0 | 1 | 6 | 11 | 23 | 11 | 3 | 1 | 2 | 2 |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| DISTRICT WT AVERAGE | 20 | 23 | 15 | 20 | 6 | 25 | 0 | 12 | 5 | 13 | 0 | 7 | 5 | 10 | 7 | 8 | 17 | 18 | 24 | 19 | 6 | 5 | 8 | 6 |

DISTRICT: FORT WORTH

YEAR: 1967

| PLAN FORMULATION STUDIES - RECREATION | | | | | | | | | | | | RECREATION USE DATA SUMMARY | | | | | | | | | | | | |
|---------------------------------------|------------------------|-----|------|--------|---------------------|-----|------|--------|--|-----|------|-----------------------------|---|-----|------|--------|---|-----|------|--------|--|-----|------|--------|
| PROJECT | CAMPING ON PROJECT (%) | | | | STAYING IN AREA (%) | | | | CAMPING ON PROJ. AND STAYING IN AREA (%) | | | | AVG. DURATION OF VISIT CAMPING ON PROJ (Days) | | | | AVG. DURATION OF VISIT STAYING IN AREA (Days) | | | | AVG. DURATION OF VISIT DAY USE (Hours) | | | |
| | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG |
| BELTON | 6 | 20 | 6 | 11 | 0 | 0 | 0 | 0 | 6 | 20 | 6 | 11 | 2.1 | 2.5 | 2.3 | 2.3 | 2.0 | 0.0 | 0.0 | 2.0 | 3.0 | 3.4 | 2.9 | 3.1 |
| BENBROOK | 9 | 18 | 11 | 12 | 0 | 0 | 0 | 0 | 9 | 18 | 11 | 12 | 2.4 | 3.2 | 2.8 | 2.8 | 0.0 | 0.0 | 0.0 | 0.0 | 3.3 | 3.5 | 3.0 | 3.3 |
| CANYON | 22 | 20 | 10 | 19 | 1 | 1 | 0 | 1 | 23 | 21 | 10 | 20 | 2.8 | 3.1 | 2.3 | 2.9 | 3.1 | 3.4 | 0.0 | 3.2 | 4.4 | 3.5 | 3.1 | 3.8 |
| DAM B | 19 | 15 | 20 | 18 | 6 | 2 | 5 | 8 | 25 | 17 | 25 | 26 | 2.8 | 4.2 | 3.1 | 3.3 | 2.8 | 2.6 | 3.1 | 2.7 | 3.9 | 2.2 | 3.0 | 3.1 |
| GARZA-LITTLE ELM | 5 | 11 | 6 | 7 | 0 | 0 | 0 | 0 | 5 | 11 | 6 | 7 | 2.0 | 2.7 | 2.0 | 2.3 | 2.0 | 2.0 | 0.0 | 2.0 | 3.5 | 3.9 | 3.2 | 3.6 |
| GRAPEVINE | 5 | 12 | 6 | 8 | 0 | 0 | 0 | 0 | 5 | 12 | 6 | 8 | 2.2 | 4.2 | 2.1 | 3.0 | 2.0 | 0.0 | 0.0 | 2.0 | 3.3 | 3.3 | 2.9 | 3.2 |
| HORDS CREEK | 38 | 28 | 11 | 29 | 1 | 0 | 0 | 1 | 39 | 28 | 11 | 30 | 2.8 | 3.3 | 3.2 | 3.0 | 2.0 | 0.0 | 0.0 | 2.0 | 4.4 | 5.3 | 5.1 | 5.1 |
| LAYON | 8 | 9 | 13 | 9 | 1 | 0 | 0 | 0 | 9 | 9 | 13 | 9 | 2.0 | 2.2 | 2.2 | 2.1 | 2.6 | 0.0 | 0.0 | 2.6 | 4.6 | 4.2 | 4.4 | 4.4 |
| NAVARRO MILLS | 15 | 20 | 9 | 15 | 1 | 0 | 0 | 1 | 16 | 20 | 9 | 16 | 2.0 | 2.4 | 2.0 | 2.1 | 2.0 | 2.0 | 0.0 | 2.0 | 3.9 | 3.6 | 3.4 | 3.7 |
| PROCTOR | 28 | 26 | 16 | 25 | 3 | 0 | 4 | 2 | 31 | 26 | 20 | 27 | 3.3 | 4.1 | 3.1 | 3.6 | 2.7 | 0.0 | 3.3 | 2.9 | 3.4 | 3.5 | 3.2 | 3.4 |
| SAN ANGELO | 5 | 10 | 2 | 6 | 3 | 0 | 0 | 1 | 8 | 10 | 2 | 7 | 2.5 | 2.0 | 10.5 | 4.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.2 | 2.4 | 2.3 | 2.3 |
| WHITNEY | 23 | 44 | 20 | 32 | 11 | 0 | 2 | 5 | 34 | 44 | 22 | 37 | 4.2 | 3.3 | 2.5 | 3.4 | 2.7 | 0.0 | 2.5 | 2.6 | 5.4 | 3.9 | 3.9 | 4.4 |
| | | | | | | | | | | | | | | | | | | | | | | | | |
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| DISTRICT WT AVERAGE | 13 | 17 | 10 | 14 | 1 | 1 | 0 | 1 | 15 | 18 | 10 | 15 | 2.5 | 3.2 | 2.7 | 2.8 | 2.4 | 2.7 | 2.7 | 2.6 | 3.8 | 3.6 | 3.3 | 3.6 |

DISTRICT: FORT WORTH

YEAR: 1967

| PLAN FORMULATION STUDIES - RECREATION | | | | | | | | | | | | | | RECREATION USE DATA SUMMARY | | | | | | | | | | | | | |
|---------------------------------------|-------------------------|-------|-------|-------|--------------------------|-----|------|--------|----------------------------|-----|------|--------|---------------------------------|-----------------------------|------|--------|----------------------------------|-----|------|--------|-------------|-----|------|--------|--|--|--|
| PROJECT | NO. OF PERSONS SURVEYED | | | | % OF VISITORS ON WEEKEND | | | | NO. OF PERSONS PER VEHICLE | | | | % OF VEHICLES WITH BOAT-TRAILER | | | | % OF VEHICLES WITH HOUSE-TRAILER | | | | FISHING (%) | | | | | | |
| | SP | SUM | FALL | TOTAL | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BELTON | 575 | 666 | 348 | 1,589 | 63 | 47 | 59 | 56 | 2.5 | 2.9 | 2.3 | 2.6 | | 0 | 1 | 1 | 1 | 44 | 31 | 52 | 41 | | | | | | |
| BENBROOK | 2,376 | 1,941 | 949 | 5,266 | 72 | 55 | 60 | 64 | 2.3 | 2.7 | 2.1 | 2.4 | | 1 | 1 | 1 | 1 | 71 | 42 | 61 | 59 | | | | | | |
| CANYON | 2,269 | 3,430 | 1,512 | 7,211 | 73 | 67 | 64 | 68 | 3.0 | 3.6 | 2.7 | 3.2 | | 3 | 2 | 2 | 2 | 51 | 26 | 54 | 41 | | | | | | |
| DAM B | 957 | 739 | 401 | 2,097 | 66 | 58 | 63 | 63 | 2.4 | 3.1 | 2.4 | 2.6 | | 4 | 2 | 2 | 3 | 62 | 47 | 48 | 55 | | | | | | |
| GARZA-LITTLE ELM | 1,592 | 1,955 | 890 | 4,437 | 79 | 76 | 65 | 75 | 2.8 | 3.2 | 2.8 | 3.0 | | 2 | 1 | 8 | 3 | 59 | 21 | 44 | 40 | | | | | | |
| GRAPEVINE | 2,461 | 2,674 | 851 | 5,986 | 72 | 70 | 60 | 69 | 2.6 | 3.2 | 2.3 | 2.8 | | 3 | 0 | 1 | 1 | 56 | 21 | 48 | 40 | | | | | | |
| HORDS CREEK | 419 | 545 | 137 | 1,101 | 81 | 64 | 59 | 70 | 3.0 | 3.5 | 2.1 | 3.1 | | 5 | 5 | 0 | 4 | 61 | 26 | 44 | 43 | | | | | | |
| LAVON | 1,731 | 2,030 | 983 | 4,744 | 72 | 70 | 68 | 70 | 2.8 | 3.0 | 2.5 | 2.8 | | 1 | 2 | 0 | 1 | 39 | 28 | 33 | 33 | | | | | | |
| NAVARRO MILLS | 1,633 | 1,178 | 493 | 3,304 | 67 | 65 | 66 | 66 | 2.5 | 3.0 | 2.3 | 2.6 | | 2 | 2 | 1 | 2 | 73 | 49 | 62 | 63 | | | | | | |
| PROCTOR | 746 | 693 | 171 | 1,610 | 66 | 42 | 49 | 54 | 2.7 | 3.2 | 2.1 | 2.8 | | 6 | 2 | 4 | 4 | 63 | 31 | 58 | 50 | | | | | | |
| SAN ANGELO | 343 | 502 | 237 | 1,082 | 61 | 59 | 57 | 59 | 2.3 | 2.4 | 2.0 | 2.3 | | 2 | 1 | 0 | 1 | 52 | 32 | 27 | 37 | | | | | | |
| WHITNEY | 577 | 749 | 352 | 1,678 | 65 | 49 | 53 | 56 | 2.7 | 3.5 | 2.5 | 3.0 | | 1 | 1 | 2 | 1 | 84 | 67 | 75 | 75 | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| DISTRICT WT AVERAGE | | | | | 71 | 64 | 62 | 66 | 2.6 | 3.1 | 2.4 | 2.8 | | 2 | 1 | 2 | 2 | 60 | 32 | 50 | 47 | | | | | | |

| PROJECT | PICKICKING (%) | | | | SWIMMING (%) | | | | WATER SKIING (%) | | | | PLEASURE BOATING (%) | | | | SIGHTSEEING (%) | | | | OTHERS (%) | | | | | | | | | |
|---------------------|----------------|-----|------|--------|--------------|-----|------|--------|------------------|-----|------|--------|----------------------|-----|------|--------|-----------------|-----|------|--------|------------|-----|------|--------|-----|-----|------|--------|--------|--|
| | SUM | | FALL | | WT AVG | | SP | | SUM | | FALL | | WT AVG | | SP | | SUM | | FALL | | WT AVG | | SP | | SUM | | FALL | | WT AVG | |
| | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | | |
| ✓ BELTON | 22 | 17 | 19 | 19 | 6 | 35 | 0 | 15 | 1 | 9 | 1 | 4 | 2 | 4 | 1 | 2 | 33 | 25 | 22 | 27 | 7 | 4 | 9 | 6 | | | | | | |
| BENBROOK | 7 | 10 | 7 | 8 | 2 | 13 | 0 | 5 | 1 | 7 | 0 | 3 | 4 | 10 | 1 | 5 | 11 | 19 | 27 | 17 | 4 | 3 | 8 | 5 | | | | | | |
| CANYON | 22 | 31 | 18 | 25 | 5 | 33 | 1 | 16 | 6 | 16 | 2 | 9 | 5 | 11 | 7 | 8 | 25 | 24 | 26 | 25 | 1 | 4 | 5 | 3 | | | | | | |
| DAM B | 12 | 10 | 7 | 10 | 1 | 6 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 24 | 35 | 24 | 27 | 3 | 4 | 7 | 4 | | | | | | |
| GARZA-LITTLE ELM | 20 | 26 | 23 | 23 | 1 | 27 | 0 | 12 | 3 | 24 | 2 | 12 | 21 | 24 | 2 | 18 | 9 | 4 | 32 | 12 | 0 | 2 | 0 | 1 | | | | | | |
| ✓ GRAPEVINE | 12 | 14 | 8 | 12 | 2 | 32 | 0 | 14 | 3 | 23 | 1 | 11 | 13 | 12 | 7 | 12 | 14 | 8 | 15 | 12 | 6 | 10 | 20 | 10 | | | | | | |
| HORDS CREEK | 26 | 25 | 40 | 28 | 0 | 38 | 0 | 17 | 0 | 13 | 0 | 6 | 3 | 2 | 0 | 2 | 11 | 18 | 19 | 16 | 1 | 1 | 1 | 1 | | | | | | |
| ✓ LAVON | 18 | 21 | 16 | 19 | 3 | 21 | 0 | 10 | 0 | 4 | 0 | 2 | 17 | 13 | 13 | 14 | 15 | 12 | 18 | 14 | 13 | 13 | 23 | 15 | | | | | | |
| NAVARRO MILLS | 15 | 24 | 25 | 20 | 1 | 21 | 0 | 7 | 1 | 11 | 0 | 4 | 1 | 1 | 0 | 1 | 20 | 17 | 27 | 20 | 0 | 1 | 1 | 0 | | | | | | |
| PROCTOR | 17 | 23 | 27 | 21 | 5 | 32 | 1 | 15 | 13 | 19 | 0 | 14 | 3 | 6 | 2 | 4 | 21 | 20 | 26 | 21 | 0 | 1 | 0 | 0 | | | | | | |
| SAN ANGELO | 14 | 19 | 8 | 15 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 38 | 45 | 59 | 46 | 1 | 8 | 6 | 5 | | | | | | |
| WHITNEY | 9 | 22 | 4 | 13 | 1 | 33 | 0 | 13 | 0 | 6 | 0 | 2 | 0 | 0 | 0 | 0 | 11 | 9 | 18 | 12 | 0 | 0 | 0 | 0 | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DISTRICT WT AVERAGE | 15 | 20 | 15 | 17 | 2 | 25 | 0 | 11 | 2 | 13 | 1 | 6 | 7 | 10 | 4 | 8 | 17 | 17 | 25 | 19 | 4 | 5 | 9 | 5 | | | | | | |

DISTRICT: FORT WORTH

YEAR: 1968

| PLAN FORMULATION STUDIES - RECREATION | | | | | | | | | | | | | | RECREATION USE DATA SUMMARY | | | | | | | | | | | | | |
|---------------------------------------|--------------------------|-----|------|--------|---------------------|-----|------|--------|--|-----|------|--------|---|-----------------------------|------|--------|---|-----|------|--------|--|-----|------|--------|--|--|--|
| PROJECT | CAMPING ON PROJECT A (%) | | | | STAYING IN AREA (%) | | | | CAMPING ON PROJ. AND STAYING IN AREA (%) | | | | AVG. DURATION OF VISIT CAMPING ON PROJ (Days) | | | | AVG. DURATION OF VISIT STAYING IN AREA (Days) | | | | AVG. DURATION OF VISIT DAY USE (Hours) | | | | | | |
| | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | | | |
| BELTON | 4 | 9 | 8 | 7 | 0 | 5 | 0 | 2 | 4 | 14 | 8 | 9 | 2.1 | 4.3 | 2.0 | 2.9 | 0.0 | 4.8 | 0.0 | 4.8 | 3.4 | 3.0 | 3.3 | 3.2 | | | |
| BENBROOK | 5 | 11 | 11 | 8 | 0 | 0 | 1 | 0 | 5 | 11 | 12 | 8 | 2.6 | 4.2 | 3.8 | 3.4 | 0.0 | 0.0 | 2.0 | 2.0 | 3.6 | 3.0 | 3.1 | 3.3 | | | |
| CANYON | 19 | 19 | 19 | 19 | 0 | 0 | 0 | 0 | 19 | 19 | 19 | 19 | 2.4 | 3.1 | 2.9 | 2.8 | 0.0 | 2.0 | 0.0 | 2.0 | 3.4 | 3.5 | 3.5 | 3.5 | | | |
| DAM B | 19 | 22 | 18 | 20 | 5 | 6 | 6 | 6 | 24 | 28 | 24 | 25 | 2.8 | 2.8 | 4.0 | 3.1 | 2.7 | 3.6 | 2.2 | 2.9 | 3.4 | 2.2 | 3.0 | 3.0 | | | |
| GARZA-LITTLE ELM | 11 | 8 | 11 | 10 | 0 | 0 | 7 | 1 | 11 | 8 | 18 | 11 | 2.1 | 2.7 | 2.0 | 2.3 | 0.0 | 0.0 | 2.0 | 2.0 | 4.3 | 4.2 | 3.6 | 4.1 | | | |
| GRAPEVINE | 8 | 11 | 7 | 9 | 0 | 0 | 0 | 0 | 8 | 11 | 7 | 9 | 2.1 | 2.6 | 2.0 | 2.3 | 0.0 | 0.0 | 0.0 | 0.0 | 3.1 | 3.0 | 2.0 | 2.9 | | | |
| HORDS CREEK | 34 | 31 | 4 | 27 | 1 | 0 | 0 | 0 | 35 | 31 | 4 | 28 | 3.3 | 4.5 | 2.0 | 3.6 | 2.3 | 0.0 | 0.0 | 2.3 | 4.6 | 3.0 | 2.0 | 3.4 | | | |
| LAVON | 9 | 8 | 10 | 9 | 1 | 0 | 0 | 0 | 10 | 8 | 10 | 9 | 3.0 | 2.8 | 2.2 | 2.7 | 3.6 | 3.9 | 0.0 | 3.8 | 4.6 | 4.4 | 2.2 | 4.0 | | | |
| NAVARRO MILLS | 25 | 28 | 17 | 25 | 0 | 3 | 9 | 2 | 25 | 31 | 26 | 27 | 3.0 | 2.9 | 2.1 | 2.8 | 0.0 | 3.4 | 2.4 | 3.0 | 4.1 | 3.7 | 3.4 | 3.9 | | | |
| PROCTOR | 32 | 25 | 12 | 26 | 3 | 4 | 7 | 4 | 35 | 29 | 19 | 30 | 4.1 | 3.7 | 4.3 | 4.0 | 3.5 | 3.8 | 5.4 | 3.9 | 3.6 | 3.3 | 2.9 | 3.4 | | | |
| SAN ANGELO | 5 | 6 | 1 | 4 | 8 | 0 | 0 | 2 | 13 | 6 | 1 | 7 | 2.8 | 2.0 | 2.0 | 2.2 | 2.2 | 0.0 | 0.0 | 2.2 | 3.0 | 3.4 | 2.1 | 3.0 | | | |
| WHITNEY | 29 | 40 | 17 | 30 | 1 | 9 | 2 | 4 | 30 | 49 | 19 | 34 | 2.6 | 3.9 | 2.7 | 3.1 | 3.1 | 3.8 | 2.0 | 3.1 | 4.7 | 4.5 | 3.9 | 4.4 | | | |
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| DISTRICT WT AVERAGE | 14 | 15 | 12 | 14 | 1 | 1 | 2 | 1 | 15 | 16 | 14 | 15 | 2.6 | 3.2 | 2.7 | 2.8 | 3.1 | 3.2 | 2.3 | 3.0 | 3.8 | 3.5 | 3.0 | 3.5 | | | |

DISTRICT: FORT WORTH

YEAR: 1968

PLAN FORMULATION STUDIES - RECREATION

RECREATION USE DATA SUMMARY

| PROJECT | NO. OF PERSONS SURVEYED | | | | % OF VISITORS ON WEEKEND | | | | NO. OF PERSONS PER VEHICLE | | | | % OF VEHICLES WITH BOAT-TRAILER | | | | % OF VEHICLES WITH HOUSE-TRAILER | | | | FISHING (%) | | | |
|---------------------|-------------------------|-------|-------|-------|--------------------------|----|----|-----|----------------------------|--------|-----|-----|---------------------------------|--------|----|-----|----------------------------------|--------|----|-----|-------------|--------|----|----|
| | SUM | | FALL | | TOTAL | | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | | |
| | SP | SUM | FALL | TOTAL | | | | | | | | | | | | | | | | | | | | |
| BEAVER | 3,593 | 2,584 | 1,194 | 7,371 | 71 | 34 | 49 | 54 | 3.0 | 3.3 | 2.7 | 3.0 | 11 | 11 | 9 | 11 | 0 | 1 | 0 | 0 | 21 | 23 | 35 | 24 |
| BULL SHOALS | 1,287 | 2,528 | 1,035 | 4,850 | 50 | 45 | 43 | 46 | 2.5 | 3.1 | 2.5 | 2.8 | 8 | 8 | 2 | 7 | 1 | 1 | 2 | 1 | 50 | 27 | 27 | 34 |
| GREERS FERRY | 2,146 | 2,946 | 512 | 5,604 | 75 | 58 | 55 | 65 | 3.1 | 3.4 | 3.2 | 3.3 | 12 | 8 | 11 | 10 | 1 | 2 | 1 | 1 | 39 | 31 | 30 | 34 |
| NORFORK | 1,382 | 1,846 | 504 | 3,732 | 56 | 43 | 59 | 51 | 2.4 | 3.4 | 2.4 | 2.8 | 7 | 8 | 4 | 7 | 1 | 2 | 0 | 1 | 28 | 18 | 30 | 24 |
| TABLE ROCK | 1,971 | 3,938 | 996 | 6,905 | 54 | 46 | 50 | 49 | 2.7 | 3.1 | 2.5 | 2.9 | 22 | 19 | 18 | 20 | 2 | 2 | 1 | 2 | 63 | 50 | 57 | 55 |
| | | | | | | | | | | | | | | | | | | | | | | | | |
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| DISTRICT WT AVERAGE | | | | | 63 | 46 | 50 | 53 | 2.8 | 3.2 | 2.6 | 3.0 | 12 | 12 | 9 | 12 | 1 | 2 | 1 | 1 | 38 | 33 | 37 | 35 |

| PROJECT | PICKNICKING (%) | | | | | | SWIMMING (%) | | | | | | WATER SKIING (%) | | | | | | PLEASURE BOATING (%) | | | | | | SIGHTSEEING (%) | | | | | | OTHERS (%) | | | | | | |
|---------------------|-----------------|----|------|----|--------|----|--------------|----|------|----|--------|---|------------------|----|------|----|--------|----|----------------------|----|------|---|--------|---|-----------------|--|------|--|--------|--|------------|--|------|--|--------|--|--|
| | SUM | | FALL | | WT AVG | | SUM | | FALL | | WT AVG | | SUM | | FALL | | WT AVG | | SUM | | FALL | | WT AVG | | SUM | | FALL | | WT AVG | | SUM | | FALL | | WT AVG | | |
| | SP | | | | | | SP | | | | | | SP | | | | | | SP | | | | | | SP | | | | | | SP | | | | | | |
| BEAVER | 5 | 8 | 1 | 5 | 0 | 42 | 0 | 14 | 1 | 8 | 0 | 3 | 3 | 8 | 1 | 4 | 70 | 25 | 57 | 52 | 0 | 0 | 2 | 0 | | | | | | | | | | | | | |
| BULL SHOALS | 13 | 14 | 3 | 11 | 1 | 39 | 0 | 19 | 0 | 10 | 0 | 5 | 3 | 7 | 0 | 4 | 34 | 26 | 55 | 35 | 6 | 3 | 13 | 6 | | | | | | | | | | | | | |
| GREERS FERRY | 21 | 23 | 10 | 21 | 10 | 48 | 1 | 28 | 6 | 10 | 0 | 7 | 7 | 13 | 2 | 10 | 27 | 26 | 47 | 28 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | |
| NORFORK | 11 | 9 | 1 | 9 | 9 | 48 | 0 | 24 | 1 | 10 | 0 | 5 | 6 | 17 | 3 | 10 | 53 | 28 | 63 | 44 | 2 | 0 | 2 | 1 | | | | | | | | | | | | | |
| TABLE ROCK | 9 | 8 | 8 | 8 | 15 | 37 | 0 | 24 | 6 | 13 | 0 | 9 | 20 | 35 | 50 | 33 | 13 | 20 | 26 | 19 | 4 | 3 | 6 | 4 | | | | | | | | | | | | | |
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| DISTRICT WT AVERAGE | 11 | 12 | 4 | 10 | 6 | 42 | 0 | 21 | 3 | 10 | 0 | 6 | 8 | 18 | 13 | 13 | 43 | 24 | 49 | 35 | 2 | 1 | 6 | 2 | | | | | | | | | | | | | |

| PROJECT | CAMPING ON PROJECT (\$) | | | | STAYING IN AREA (%) | | | | CAMPING ON PROJ. AND STAYING IN AREA (%) | | | | AVG. DURATION OF VISIT CAMPING ON PROJ. (Days) | | | | AVG. DURATION OF VISIT STAYING IN AREA (Days) | | | | AVG. DURATION OF VISIT DAY USE (Hours) | | | | | |
|---------------------|-------------------------|-----|------|----|---------------------|----|-----|------|--|-----|----|-----|--|----|-----|-----|---|------|-----|-----|--|-----|------|-----|-----|-----|
| | SP | SUM | FALL | WT | AVG | SP | SUM | FALL | WT | AVG | SP | SUM | FALL | WT | AVG | SP | SUM | FALL | WT | AVG | SP | SUM | FALL | WT | AVG | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BEAVER | 2 | 6 | 2 | 3 | | 5 | 10 | 31 | 11 | | 7 | 16 | 33 | 14 | | 3.1 | 4.1 | 3.8 | 3.6 | | 4.7 | 5.7 | 4.6 | 5.0 | 2.6 | 2.7 |
| BULL SHOALS | 5 | 13 | 3 | 8 | | 38 | 28 | 41 | 34 | | 43 | 41 | 44 | 42 | | 4.2 | 5.6 | 3.6 | 4.7 | | 4.7 | 6.7 | 6.1 | 6.0 | 4.0 | 3.2 |
| GREERS FERRY | 18 | 23 | 7 | 20 | | 17 | 11 | 31 | 15 | | 35 | 34 | 38 | 35 | | 2.9 | 3.7 | 3.7 | 3.4 | | 3.1 | 3.5 | 2.4 | 3.2 | 3.6 | 3.3 |
| NORFORK | 4 | 18 | 3 | 9 | | 21 | 14 | 31 | 19 | | 25 | 32 | 34 | 28 | | 9.1 | 5.7 | 3.8 | 6.8 | | 6.0 | 6.1 | 6.0 | 6.0 | 2.2 | 2.3 |
| TABLE ROCK | 15 | 22 | 6 | 17 | | 32 | 29 | 24 | 29 | | 47 | 51 | 30 | 46 | | 3.2 | 5.4 | 4.7 | 4.6 | | 4.3 | 6.2 | 5.0 | 5.4 | 5.5 | 4.6 |
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| DISTRICT WT AVERAGE | 8 | 17 | 4 | 11 | | 20 | 20 | 32 | 22 | | 28 | 37 | 36 | 33 | | 4.1 | 4.9 | 4.0 | 4.5 | | 4.5 | 5.6 | 5.0 | 5.1 | 3.5 | 3.5 |
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DISTRICT: LITTLE ROCK

YEAR: 1966

| PLAN FORMULATION STUDIES - RECREATION | | | | | | | | | | RECREATION USE DATA SUMMARY | | | | | | | | | | | | |
|---------------------------------------|-------------------------|-------|-------|--------------------------|----|-----|----------------------------|--------|-----|---------------------------------|------|--------|----------------------------------|-----|------|-------------|----|-----|------|--------|----|----|
| PROJECT | NO. OF PERSONS SURVEYED | | | % OF VISITORS ON WEEKEND | | | NO. OF PERSONS PER VEHICLE | | | % OF VEHICLES WITH BOAT-TRAILER | | | % OF VEHICLES WITH HOUSE-TRAILER | | | FISHING (%) | | | | | | |
| | SP | SUM | FALL | TOTAL | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | | |
| BEAVER | 2,381 | 2,341 | 676 | 5,398 | 69 | 33 | 41 | 51 | 2.6 | 3.2 | 2.5 | 2.8 | 15 | 14 | 3 | 0 | 2 | 50 | 40 | 24 | 42 | |
| BULL SHOALS | 1,309 | 2,429 | 1,176 | 4,914 | 61 | 51 | 74 | 60 | 2.4 | 3.2 | 2.4 | 2.7 | 7 | 9 | 5 | 0 | 1 | 42 | 31 | 26 | 33 | |
| GREERS FERRY | 1,050 | 2,696 | 527 | 4,273 | 75 | 50 | 72 | 60 | 2.8 | 3.8 | 3.0 | 3.4 | 9 | 9 | 6 | 3 | 2 | 46 | 33 | 25 | 36 | |
| NORFORK | 886 | 2,428 | 604 | 3,918 | 60 | 51 | 48 | 53 | 2.4 | 3.4 | 2.4 | 2.9 | 5 | 8 | 3 | 6 | 1 | 42 | 13 | 43 | 27 | |
| TABLE ROCK | 1,181 | 3,003 | 846 | 5,030 | 49 | 46 | 43 | 46 | 2.5 | 3.5 | 2.5 | 3.0 | 17 | 17 | 9 | 15 | 3 | 2 | 57 | 51 | 53 | 53 |
| | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |
| DISTRICT WT AVERAGE | | | | | 63 | 46 | 57 | 54 | 2.5 | 3.4 | 2.5 | 2.9 | 11 | 12 | 5 | 10 | 1 | 2 | 48 | 34 | 34 | 39 |

| PROJECT | PICNICKING (%) | | | | SWIMMING (%) | | | | WATER SKIING (%) | | | | PLEASURE BOATING (%) | | | | SIGHTSEEING (%) | | | | OTHERS (%) | | | |
|---------------------|----------------|----|------|--------|--------------|----|------|--------|------------------|----|------|--------|----------------------|----|------|--------|-----------------|----|------|--------|------------|---|------|--------|
| | SUM | | FALL | WT AVG | SUM | | FALL | WT AVG | SUM | | FALL | WT AVG | SUM | | FALL | WT AVG | SUM | | FALL | WT AVG | SUM | | FALL | WT AVG |
| | SP | | | | SP | | | | SP | | | | SP | | | | SP | | | | SP | | | |
| BEAVER | 11 | 9 | 1 | 9 | 0 | 30 | 0 | 12 | 0 | 8 | 0 | 3 | 3 | 4 | 1 | 3 | 34 | 29 | 65 | 36 | 2 | 1 | 2 | 2 |
| BULL SHOALS | 11 | 9 | 5 | 9 | 0 | 39 | 0 | 17 | 0 | 13 | 0 | 6 | 5 | 10 | 4 | 7 | 41 | 28 | 56 | 39 | 9 | 4 | 10 | 7 |
| GREERS FERRY | 11 | 30 | 12 | 22 | 0 | 57 | 0 | 32 | 1 | 12 | 0 | 7 | 3 | 10 | 2 | 7 | 40 | 20 | 59 | 31 | 0 | 1 | 0 | 1 |
| NORFORK | 4 | 4 | 3 | 4 | 0 | 58 | 4 | 31 | 1 | 13 | 0 | 7 | 11 | 16 | 3 | 12 | 45 | 19 | 45 | 31 | 0 | 1 | 3 | 1 |
| TABLE ROCK | 5 | 9 | 2 | 6 | 0 | 49 | 0 | 26 | 0 | 15 | 0 | 8 | 7 | 21 | 3 | 14 | 31 | 19 | 40 | 27 | 2 | 3 | 1 | 2 |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| DISTRICT WT AVERAGE | 9 | 12 | 4 | 10 | 0 | 46 | 1 | 23 | 0 | 12 | 0 | 6 | 5 | 12 | 3 | 8 | 37 | 23 | 53 | 33 | 3 | 2 | 4 | 3 |

| PROJECT | CAMPING ON PROJECT (%) | | | | | | STAYING IN AREA (%) | | | | | | CAMPING ON PROJ. AND STAYING IN AREA (%) | | | | | | AVG. DURATION OF VISIT CAMPING ON PROJ. (Days) | | | | | | AVG. DURATION OF VISIT STAYING IN AREA (Days) | | | | | | AVG. DURATION OF VISIT DAY USE (Hours) | | | | | | | | | | | | | | |
|---------------------|------------------------|-----|------|--------|----|-----|---------------------|--------|----|-----|------|--------|--|-----|------|--------|-----|-----|--|--------|-----|-----|------|--------|---|-----|------|--------|----|-----|--|--------|----|-----|------|--------|-----|--|--|------|--|--|--------|--|--|
| | SUM | | | FALL | | | WT AVG | | | SP | | | SUM | | | FALL | | | WT AVG | | | SP | | | SUM | | | FALL | | | WT AVG | | | SP | | | SUM | | | FALL | | | WT AVG | | |
| | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | | | | | | | | | |
| BEAVER | 8 | 23 | 3 | 13 | 12 | 18 | 26 | 16 | 20 | 41 | 29 | 30 | 3.9 | 4.6 | 6.9 | 4.6 | 3.4 | 3.9 | 5.0 | 3.8 | 3.7 | 3.1 | 2.0 | 3.2 | | | | | | | | | | | | | | | | | | | | | |
| BULL SHOALS | 3 | 13 | 2 | 7 | 31 | 26 | 26 | 27 | 34 | 39 | 28 | 35 | 4.4 | 6.9 | 4.8 | 5.6 | 6.6 | 6.5 | 5.4 | 6.2 | 3.7 | 3.3 | 2.5 | 3.2 | | | | | | | | | | | | | | | | | | | | | |
| GREERS FERRY | 20 | 31 | 15 | 26 | 22 | 10 | 16 | 14 | 42 | 41 | 31 | 40 | 2.9 | 4.5 | 2.9 | 3.8 | 3.2 | 4.7 | 3.0 | 4.0 | 4.2 | 4.3 | 3.0 | 4.1 | | | | | | | | | | | | | | | | | | | | | |
| NORFORK | 10 | 30 | 10 | 21 | 15 | 14 | 25 | 16 | 25 | 44 | 35 | 37 | 4.9 | 5.9 | 3.5 | 5.2 | 7.4 | 7.2 | 7.2 | 7.3 | 2.6 | 2.9 | 2.7 | 2.8 | | | | | | | | | | | | | | | | | | | | | |
| TABLE ROCK | 9 | 27 | 4 | 17 | 29 | 33 | 27 | 31 | 38 | 50 | 31 | 43 | 5.2 | 5.6 | 4.9 | 5.3 | 4.5 | 5.1 | 4.5 | 4.8 | 3.6 | 3.5 | 3.3 | 3.5 | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DISTRICT WT AVERAGE | 9 | 25 | 5 | 16 | 21 | 21 | 25 | 21 | 30 | 43 | 30 | 37 | 4.2 | 5.5 | 4.7 | 4.9 | 4.8 | 5.5 | 5.1 | 5.2 | 3.6 | 3.4 | 2.7 | 3.3 | | | | | | | | | | | | | | | | | | | | | |

DISTRICT: LITTLE ROCK

YEAR: 1967

PLAN FORMULATION STUDIES - RECREATION

RECREATION USE DATA SUMMARY

| PROJECT | NO. OF PERSONS SURVEYED | | | | % OF VISITORS ON WEEKEND | | | | NO. OF PERSONS PER VEHICLE | | | | % OF VEHICLES WITH BOAT-TRAILER | | | | % OF VEHICLES WITH HOUSE-TRAILER | | | | FISHING (%) | | | |
|---------------------|-------------------------|-------|-------|-------|--------------------------|----|------|----|----------------------------|-----|------|-----|---------------------------------|----|------|----|----------------------------------|----|------|----|-------------|----|------|----|
| | SUM | | FALL | | SUM | | FALL | | SUM | | FALL | | SUM | | FALL | | SUM | | FALL | | SUM | | FALL | |
| | SP | WT | FALL | WT | SP | WT | FALL | WT | SP | WT | FALL | WT | SP | WT | FALL | WT | SP | WT | FALL | WT | SP | WT | FALL | WT |
| BEAVER | 1,228 | 1,560 | 699 | 3,487 | 51 | 40 | 52 | 47 | 2,4 | 3,0 | 2,4 | 2,6 | 18 | 25 | 33 | 24 | 2 | 3 | 1 | 2 | 56 | 55 | 62 | 57 |
| BULL SHOALS | 1,914 | 2,620 | 1,318 | 5,852 | 60 | 46 | 56 | 54 | 2,5 | 3,2 | 2,3 | 2,7 | 8 | 11 | 7 | 9 | 2 | 3 | 2 | 2 | 41 | 29 | 36 | 35 |
| GREERS FERRY | 1,792 | 3,234 | 618 | 5,644 | 77 | 60 | 52 | 65 | 2,8 | 3,6 | 2,6 | 3,2 | 13 | 11 | 3 | 11 | 3 | 4 | 3 | 4 | 53 | 27 | 37 | 38 |
| NORFORK | 1,246 | 1,977 | 578 | 3,801 | 59 | 52 | 54 | 55 | 2,4 | 3,1 | 2,2 | 2,7 | 10 | 6 | 5 | 7 | 1 | 1 | 0 | 1 | 41 | 25 | 40 | 34 |
| TABLE ROCK | 1,822 | 2,915 | 996 | 5,733 | 54 | 50 | 55 | 52 | 2,7 | 3,3 | 2,5 | 2,9 | 18 | 18 | 12 | 17 | 1 | 1 | 1 | 1 | 61 | 46 | 49 | 52 |
| DISTRICT WT AVERAGE | | | | | 61 | 50 | 54 | 55 | 2,6 | 3,3 | 2,4 | 2,8 | 13 | 14 | 12 | 13 | 2 | 2 | 1 | 2 | 50 | 35 | 44 | 42 |

| PROJECT | PICKNICKING (%) | | | | SWIMMING (%) | | | | WATER SKIING (%) | | | | PLEASURE BOATING (%) | | | | SIGHTSEEING (%) | | | | OTHERS (%) | | | |
|---------------------|-----------------|----|------|----|--------------|----|------|----|------------------|----|------|----|----------------------|----|------|----|-----------------|----|------|----|------------|----|------|----|
| | SUM | | FALL | | SUM | | FALL | | SUM | | FALL | | SUM | | FALL | | SUM | | FALL | | SUM | | FALL | |
| | SP | WT | FALL | WT | SP | WT | FALL | WT | SP | WT | FALL | WT | SP | WT | FALL | WT | SP | WT | FALL | WT | SP | WT | FALL | WT |
| BEAVER | 8 | 9 | 6 | 8 | 0 | 23 | 0 | 23 | 0 | 3 | 0 | 1 | 3 | 8 | 3 | 5 | 35 | 21 | 28 | 28 | 1 | 0 | 0 | 0 |
| BULL SHOALS | 12 | 10 | 9 | 10 | 1 | 30 | 0 | 12 | 0 | 9 | 0 | 4 | 4 | 8 | 4 | 6 | 47 | 35 | 49 | 43 | 5 | 2 | 7 | 4 |
| GREERS FERRY | 13 | 16 | 5 | 13 | 6 | 65 | 0 | 35 | 2 | 13 | 0 | 7 | 7 | 8 | 6 | 7 | 28 | 21 | 53 | 28 | 0 | 0 | 0 | 0 |
| NORFORK | 4 | 6 | 2 | 5 | 2 | 41 | 0 | 19 | 1 | 10 | 0 | 5 | 8 | 9 | 4 | 8 | 45 | 32 | 49 | 40 | 0 | 1 | 0 | 0 |
| TABLE ROCK | 6 | 7 | 6 | 6 | 3 | 47 | 0 | 22 | 3 | 12 | 0 | 6 | 11 | 20 | 12 | 15 | 22 | 19 | 35 | 23 | 2 | 3 | 1 | 2 |
| DISTRICT WT AVERAGE | 9 | 10 | 6 | 9 | 2 | 43 | 0 | 20 | 1 | 10 | 0 | 5 | 7 | 11 | 6 | 9 | 35 | 25 | 43 | 32 | 2 | 1 | 2 | 2 |

| PROJECT | CAMPING ON PROJECT (%) | | | | STAYING IN AREA (%) | | | | CAMPING ON PROJ. AND STAYING IN AREA (%) | | | | AVG. DURATION OF VISIT CAMPING ON PROJ. (Days) | | | | AVG. DURATION OF VISIT STAYING IN AREA (Days) | | | | AVG. DURATION OF VISIT DAY USE (Hours) | | | |
|---------------------|------------------------|----|------|----|---------------------|----|------|----|--|----|------|----|--|-----|------|-----|---|-----|------|-----|--|-----|------|-----|
| | SUM | | FALL | | SUM | | FALL | | SUM | | FALL | | SUM | | FALL | | SUM | | FALL | | SUM | | FALL | |
| | SP | WT | FALL | WT | SP | WT | FALL | WT | SP | WT | FALL | WT | SP | WT | FALL | WT | SP | WT | FALL | WT | SP | WT | FALL | WT |
| BEAVER | 10 | 27 | 11 | 17 | 12 | 9 | 19 | 12 | 22 | 36 | 30 | 29 | 3,1 | 3,5 | 2,3 | 3,1 | 4,4 | 6,7 | 4,6 | 5,3 | 2,9 | 3,3 | 3,9 | 3,3 |
| BULL SHOALS | 7 | 19 | 4 | 11 | 25 | 14 | 38 | 24 | 32 | 33 | 42 | 35 | 3,7 | 5,0 | 3,3 | 4,1 | 5,9 | 5,4 | 5,5 | 5,6 | 2,9 | 2,7 | 2,8 | 2,8 |
| GREERS FERRY | 25 | 45 | 13 | 34 | 13 | 0 | 27 | 8 | 38 | 45 | 40 | 42 | 2,8 | 4,2 | 2,8 | 3,5 | 3,1 | 4,3 | 3,8 | 3,8 | 4,0 | 3,5 | 3,1 | 3,6 |
| NORFORK | 4 | 21 | 2 | 11 | 13 | 11 | 13 | 12 | 17 | 32 | 15 | 23 | 5,2 | 6,0 | 4,6 | 5,4 | 6,2 | 7,4 | 9,6 | 7,4 | 2,9 | 2,8 | 2,4 | 2,8 |
| TABLE ROCK | 7 | 24 | 7 | 15 | 12 | 8 | 31 | 14 | 19 | 32 | 38 | 29 | 3,6 | 4,9 | 2,4 | 3,9 | 3,5 | 4,0 | 4,3 | 3,9 | 4,2 | 4,3 | 3,6 | 4,1 |
| DISTRICT WT AVERAGE | 11 | 28 | 7 | 18 | 15 | 8 | 28 | 14 | 26 | 36 | 35 | 32 | 3,6 | 4,7 | 3,1 | 4,0 | 4,6 | 5,3 | 5,5 | 5,1 | 3,4 | 3,4 | 3,1 | 3,3 |

DISTRICT: LITTLE ROCK

YEAR: 1968

| PLAN FORMULATION STUDIES - RECREATION | | | | | | | | | | | | | | RECREATION USE DATA SUMMARY | | | | | | | | | | | | | |
|---------------------------------------|-------------------------|-------|------|-------|--------------------------|-----|------|--------|----------------------------|-----|------|--------|---------------------------------|-----------------------------|------|--------|----------------------------------|-----|------|--------|-------------|-----|------|--------|--|--|--|
| PROJECT | NO. OF PERSONS SURVEYED | | | | % OF VISITORS ON WEEKEND | | | | NO. OF PERSONS PER VEHICLE | | | | % OF VEHICLES WITH BOAT-TRAILER | | | | % OF VEHICLES WITH HOUSE-TRAILER | | | | FISHING (%) | | | | | | |
| | SP | SUM | FALL | TOTAL | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | | | |
| LAKE CUMBERLAND | 742 | 2,963 | 328 | 4,033 | 59 | 46 | 34 | 48 | 2.7 | 3.8 | 2.0 | 3.4 | 14 | 14 | 13 | 14 | 2 | 8 | 1 | 6 | 47 | 19 | 55 | 29 | | | |
| DALE HOLLOW | 622 | 1,630 | 117 | 2,369 | 65 | 40 | 56 | 48 | 3.0 | 3.8 | 2.4 | 3.5 | 12 | 30 | 18 | 24 | 1 | 4 | 0 | 3 | 28 | 13 | 28 | 18 | | | |
| CENTER HILL | 1,278 | 1,960 | 93 | 3,331 | 73 | 53 | 49 | 61 | 2.6 | 3.2 | 1.7 | 2.9 | 29 | 22 | 22 | 25 | 1 | 3 | 0 | 2 | 39 | 18 | 50 | 28 | | | |
| OLD HICKORY | 2,656 | 2,323 | 306 | 5,285 | 71 | 57 | 66 | 65 | 2.8 | 3.6 | 2.2 | 3.1 | 10 | 15 | 10 | 12 | 1 | 2 | 0 | 1 | 27 | 12 | 26 | 21 | | | |
| CHEATHAM | 474 | 786 | 479 | 1,739 | 60 | 56 | 57 | 57 | 2.8 | 3.3 | 3.2 | 3.1 | 31 | 29 | 22 | 28 | 0 | 0 | 0 | 0 | 57 | 41 | 38 | 45 | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DISTRICT WT AVERAGE | | | | | 68 | 50 | 52 | 57 | 2.8 | 3.6 | 2.4 | 3.2 | 17 | 20 | 16 | 19 | 1 | 4 | 0 | 3 | 35 | 18 | 40 | 27 | | | |

| PROJECT | PICNICKING (%) | | | | SWIMMING (%) | | | | WATER SKIING (%) | | | | PLEASURE BOATING (%) | | | | SIGHTSEEING (%) | | | | OTHERS (%) | | | |
|---------------------|----------------|----|------|--------|--------------|----|-----|------|------------------|----|---|-----|----------------------|--------|----|----|-----------------|------|--------|----|------------|-----|------|--------|
| | SUM | | FALL | WT AVG | SP | | SUM | FALL | WT AVG | SP | | SUM | FALL | WT AVG | SP | | SUM | FALL | WT AVG | SP | | SUM | FALL | WT AVG |
| | SP | | | | | | | | | | | | | | | | | | | | | | | |
| LAKE CUMBERLAND | 15 | 8 | 17 | 11 | 3 | 30 | 0 | 21 | 2 | 5 | 0 | 4 | 8 | 21 | 5 | 16 | 32 | 19 | 36 | 24 | 4 | 7 | 2 | 6 |
| DALE HOLLOW | 15 | 5 | 0 | 8 | 2 | 34 | 0 | 22 | 2 | 11 | 0 | 8 | 2 | 19 | 0 | 13 | 56 | 33 | 49 | 41 | 0 | 0 | 0 | 0 |
| CENTER HILL | 22 | 20 | 9 | 20 | 4 | 48 | 0 | 28 | 4 | 9 | 0 | 7 | 6 | 10 | 8 | 8 | 37 | 16 | 33 | 25 | 0 | 1 | 0 | 1 |
| OLD HICKORY | 27 | 29 | 11 | 27 | 6 | 37 | 0 | 18 | 1 | 6 | 0 | 3 | 3 | 10 | 9 | 6 | 45 | 25 | 45 | 37 | 1 | 1 | 11 | 2 |
| CHEATHAM | 27 | 31 | 20 | 27 | 1 | 12 | 0 | 5 | 1 | 5 | 0 | 2 | 7 | 10 | 0 | 6 | 32 | 21 | 34 | 30 | 1 | 6 | 12 | 6 |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| DISTRICT WT AVERAGE | 23 | 17 | 14 | 19 | 4 | 35 | 0 | 20 | 2 | 7 | 0 | 5 | 5 | 15 | 4 | 10 | 41 | 22 | 39 | 31 | 1 | 3 | 7 | 3 |

| PROJECT | CAMPING ON PROJECT (%) | | | | STAYING IN AREA (%) | | | | CAMPING ON PROJ. AND STAYING IN AREA (%) | | | | AVG. DURATION OF VISIT CAMPING ON PROJ (Days) | | | | AVG. DURATION OF VISIT STAYING IN AREA (Days) | | | | AVG. DURATION OF VISIT DAY USE (Hours) | | | |
|---------------------|---------------------------|-----|------|--------|------------------------|-----|------|--------|---|-----|------|--------|--|-----|------|--------|--|-----|------|--------|---|-----|------|--------|
| | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| LAKE CUMBERLAND | 16 | 35 | 3 | 27 | 30 | 39 | 24 | 35 | 46 | 74 | 27 | 62 | 3.5 | 5.1 | 2.0 | 4.4 | 2.9 | 4.3 | 3.0 | 3.8 | 5.7 | 3.3 | 3.9 | 3.9 |
| DALE HOLLOW | 7 | 43 | 0 | 29 | 4 | 8 | 0 | 6 | 11 | 51 | 0 | 35 | 4.5 | 8.0 | 0.0 | 6.9 | 4.4 | 5.4 | 0.0 | 5.1 | 3.1 | 2.9 | 2.5 | 2.9 |
| CENTER HILL | 7 | 23 | 9 | 16 | 3 | 10 | 19 | 8 | 10 | 33 | 28 | 24 | 2.6 | 4.6 | 2.4 | 3.7 | 2.9 | 4.2 | 2.5 | 3.6 | 4.5 | 4.0 | 3.5 | 4.2 |
| OLD HICKORY | 3 | 8 | 1 | 5 | 0 | 0 | 4 | 0 | 3 | 8 | 5 | 5 | 2.8 | 4.6 | 2.0 | 3.4 | 3.1 | 0.0 | 3.7 | 3.2 | 2.5 | 2.9 | 2.2 | 2.6 |
| CHEATHAM | 0 | 5 | 0 | 2 | 0 | 2 | 0 | 1 | 0 | 7 | 0 | 3 | 0.0 | 2.0 | 0.0 | 2.0 | 0.0 | 2.9 | 0.0 | 2.9 | 3.6 | 3.8 | 3.0 | 3.5 |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| DISTRICT WT AVERAGE | 6 | 25 | 2 | 15 | 5 | 15 | 9 | 11 | 11 | 40 | 11 | 26 | 3.0 | 5.1 | 2.1 | 4.1 | 3.2 | 4.3 | 3.2 | 3.8 | 3.6 | 3.3 | 3.0 | 3.4 |

DISTRICT: NASHVILLE

YEAR: 1966

PLAN FORMULATION STUDIES - RECREATION RECREATION USE DATA SUMMARY

| PROJECT | NO. OF PERSONS SURVEYED | | | % OF VISITORS ON WEEKEND | | | NO. OF PERSONS PER VEHICLE | | | % OF VEHICLES WITH BOAT-TRAILER | | | % OF VEHICLES WITH HOUSE-TRAILER | | | FISHING (%) | | | | | | | | |
|---------------------|-------------------------|------|------|--------------------------|----|-----|----------------------------|--------|-----|---------------------------------|------|--------|----------------------------------|-----|------|-------------|----|-----|------|--------|----|----|----|----|
| | SP | SUM | FALL | TOTAL | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| LAKE CUMBERLAND | 764 | 3085 | 428 | 4277 | 60 | 49 | 44 | 51 | 2.6 | 3.5 | 2.5 | 3.2 | 12 | 13 | 9 | 12 | 2 | 6 | 0 | 4 | 35 | 18 | 50 | 26 |
| DALE HOLLOW | 500 | 935 | 180 | 1615 | 54 | 54 | 48 | 53 | 3.0 | 3.8 | 2.5 | 3.3 | 19 | 32 | 31 | 27 | 3 | 4 | 3 | 4 | 44 | 16 | 33 | 28 |
| CENTER HILL | 1225 | 1589 | 148 | 2962 | 70 | 37 | 70 | 54 | 2.5 | 3.3 | 2.3 | 2.9 | 31 | 35 | 43 | 34 | 1 | 6 | 5 | 4 | 44 | 38 | 68 | 43 |
| OLD HICKORY | 685 | 1520 | 152 | 2357 | 61 | 64 | 61 | 63 | 2.7 | 3.3 | 2.4 | 3.0 | 9 | 14 | 16 | 13 | 3 | 3 | 1 | 3 | 25 | 15 | 17 | 18 |
| CHEATHAM | 799 | 970 | 325 | 2094 | 57 | 66 | 45 | 59 | 2.9 | 3.2 | 2.6 | 3.0 | 21 | 16 | 15 | 18 | 1 | 2 | 0 | 1 | 50 | 36 | 27 | 40 |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| DISTRICT WT AVERAGE | | | | | 62 | 52 | 50 | 55 | 2.7 | 3.4 | 2.5 | 3.1 | 20 | 20 | 19 | 20 | 2 | 5 | 1 | 3 | 40 | 24 | 40 | 31 |

| PROJECT | PICKNICKING (%) | | | | | SWIMMING (%) | | | | | WATER SKIING (%) | | | | | PLEASURE BOATING (%) | | | | | SIGHTSEEING (%) | | | | | OTHERS (%) | | | | |
|---------------------|-----------------|----|------|----|--------|--------------|----|------|----|--------|------------------|---|------|----|--------|----------------------|----|------|----|--------|-----------------|----|------|---|--------|------------|--|------|--|--------|
| | SUM | | FALL | | WT AVG | SUM | | FALL | | WT AVG | SUM | | FALL | | WT AVG | SUM | | FALL | | WT AVG | SUM | | FALL | | WT AVG | SUM | | FALL | | WT AVG |
| | SP | | | | | SP | | | | | SP | | | | | SP | | | | | SP | | | | | SP | | | | |
| LAKE CUMBERLAND | 10 | 6 | 1 | 6 | | 0 | 36 | 0 | 24 | 0 | 7 | 0 | 5 | 12 | 21 | 16 | 18 | 34 | 23 | 25 | 26 | 9 | 5 | 0 | 5 | | | | | |
| DALE HOLLOW | 16 | 3 | 0 | 7 | | 0 | 28 | 0 | 14 | 0 | 12 | 0 | 6 | 1 | 14 | 5 | 8 | 35 | 19 | 31 | 26 | 1 | 0 | 0 | 1 | | | | | |
| CENTER HILL | 16 | 12 | 2 | 13 | | 6 | 16 | 0 | 10 | 2 | 7 | 0 | 4 | 8 | 15 | 2 | 11 | 24 | 20 | 24 | 22 | 2 | 0 | 2 | 1 | | | | | |
| OLD HICKORY | 11 | 27 | 0 | 20 | | 0 | 32 | 0 | 19 | 0 | 11 | 0 | 7 | 6 | 8 | 10 | 7 | 36 | 24 | 71 | 32 | 23 | 9 | 1 | 13 | | | | | |
| CHEATHAM | 22 | 29 | 8 | 23 | | 0 | 7 | 0 | 3 | 0 | 2 | 0 | 1 | 3 | 9 | 1 | 5 | 31 | 31 | 39 | 32 | 3 | 2 | 9 | 4 | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DISTRICT WT AVERAGE | 15 | 14 | 3 | 13 | | 2 | 27 | 0 | 15 | 1 | 8 | 0 | 5 | 7 | 15 | 8 | 11 | 31 | 23 | 35 | 27 | 7 | 4 | 3 | 5 | | | | | |

| PROJECT | CAMPING ON PROJECT (%) | | | | | STAYING IN AREA (%) | | | | | CAMPING ON PROJ. AND STAYING IN AREA (%) | | | | | AVG. DURATION OF VISIT CAMPING ON PROJ.(Days) | | | | | AVG. DURATION OF VISIT STAYING IN AREA (Days) | | | | | AVG. DURATION OF VISIT DAY USE (Hours) | | | | |
|---------------------|---------------------------|-----|------|----|-----|------------------------|-----|------|----|-----|--|-----|------|-----|-----|--|-----|------|-----|-----|---|-----|------|-----|-----|---|--|--|--|--|
| | SP | SUM | FALL | WT | AVG | SP | SUM | FALL | WT | AVG | SP | SUM | FALL | WT | AVG | SP | SUM | FALL | WT | AVG | SP | SUM | FALL | WT | AVG | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| LAKE CUMBERLAND | 11 | 31 | 5 | 24 | 24 | 26 | 20 | 25 | 35 | 57 | 25 | 49 | 4.1 | 4.9 | 3.9 | 4.6 | 3.1 | 4.0 | 3.4 | 3.7 | 3.2 | 3.1 | 3.0 | 3.1 | | | | | | |
| DALE HOLLOW | 13 | 41 | 5 | 26 | 10 | 19 | 7 | 14 | 23 | 60 | 12 | 40 | 5.5 | 7.7 | 6.1 | 6.7 | 4.3 | 6.3 | 2.6 | 5.1 | 3.4 | 3.5 | 2.9 | 3.4 | | | | | | |
| CENTER HILL | 13 | 33 | 18 | 23 | 8 | 8 | 13 | 8 | 21 | 41 | 31 | 31 | 3.2 | 4.6 | 3.9 | 3.9 | 3.3 | 3.7 | 3.1 | 3.5 | 4.6 | 4.6 | 5.6 | 4.7 | | | | | | |
| OLD HICKORY | 12 | 21 | 1 | 17 | 1 | 1 | 0 | 1 | 13 | 22 | 1 | 18 | 3.5 | 5.3 | 3.0 | 4.5 | 2.0 | 2.0 | 0.0 | 2.0 | 2.1 | 2.9 | 1.6 | 2.5 | | | | | | |
| CHEATHAM | 6 | 9 | 0 | 6 | 2 | 0 | 1 | 1 | 8 | 9 | 1 | 7 | 4.9 | 2.6 | 0.0 | 3.7 | 3.4 | 3.0 | 2.0 | 3.0 | 3.1 | 3.4 | 2.7 | 3.2 | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DISTRICT WT AVERAGE | 11 | 28 | 5 | 20 | 9 | 14 | 10 | 12 | 20 | 42 | 15 | 32 | 4.0 | 4.9 | 4.2 | 4.5 | 3.2 | 3.7 | 2.4 | 3.4 | 3.5 | 3.5 | 3.1 | 3.4 | | | | | | |

| PLAN FORMULATION STUDIES - RECREATION | | | | | | | | | | RECREATION USE DATA SUMMARY | | | | | | | | | | | | | | |
|---------------------------------------|-------------------------|-------|-------|-------|--------------------------|-----|------|--------|----------------------------|-----------------------------|------|--------|---------------------------------|-----|------|--------|----------------------------------|-----|------|--------|-------------|-----|------|--------|
| PROJECT | NO. OF PERSONS SURVEYED | | | | % OF VISITORS ON WEEKEND | | | | NO. OF PERSONS PER VEHICLE | | | | % CF VEHICLES WITH BOAT-TRAILER | | | | % OF VEHICLES WITH HOUSE-TRAILER | | | | FISHING (%) | | | |
| | SP | SUM | FALL | TOTAL | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG |
| LAKE CUMBERLAND | 2,665 | 2,196 | 1,125 | 5,986 | 55 | 49 | 52 | 52 | 3.2 | 3.6 | 3.1 | 3.3 | 16 | 16 | 19 | 17 | 0 | 4 | 1 | 2 | 28 | 23 | 36 | 28 |
| DALE HOLLOW | 575 | 1,108 | 396 | 2,079 | 51 | 46 | 60 | 51 | 2.6 | 3.9 | 3.0 | 3.3 | 26 | 48 | 34 | 38 | 5 | 11 | 2 | 7 | 42 | 25 | 34 | 33 |
| CENTER HILL | 1,326 | 2,394 | 1,003 | 4,723 | 62 | 63 | 68 | 64 | 2.6 | 3.7 | 2.6 | 3.1 | 36 | 27 | 40 | 33 | 2 | 5 | 4 | 4 | 50 | 22 | 57 | 40 |
| OLD HICKORY | 963 | 1,699 | 344 | 3,006 | 71 | 53 | 71 | 62 | 2.7 | 3.4 | 2.5 | 3.0 | 16 | 15 | 22 | 16 | 4 | 5 | 6 | 5 | 22 | 8 | 43 | 17 |
| CHEATHAM | 1,521 | 750 | 396 | 2,667 | 68 | 62 | 71 | 67 | 3.1 | 3.2 | 3.0 | 3.1 | 21 | 17 | 21 | 20 | 0 | 3 | 2 | 1 | 28 | 37 | 55 | 33 |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| DISTRICT WT AVERAGE | | | | | 61 | 55 | 63 | 59 | 2.9 | 3.6 | 2.8 | 3.2 | 22 | 23 | 28 | 24 | 1 | 5 | 3 | 3 | 33 | 21 | 46 | 31 |

| PROJECT | PICKNICKING (%) | | | | SWIMMING (%) | | | | WATER SKIING (%) | | | | PLEASURE BOATING (%) | | | | SIGHTSEEING (%) | | | | OTHERS (%) | | | |
|---------------------|-----------------|-----|------|--------|--------------|-----|------|--------|------------------|-----|------|--------|----------------------|-----|------|--------|-----------------|-----|------|--------|------------|-----|------|--------|
| | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG |
| LAKE CUMBERLAND | 19 | 19 | 18 | 19 | 5 | 39 | 0 | 16 | 4 | 10 | 1 | 5 | 13 | 25 | 22 | 19 | 41 | 18 | 35 | 32 | 1 | 1 | 1 | 1 |
| DALE HOLLOW | 5 | 3 | 1 | 3 | 1 | 22 | 0 | 10 | 1 | 12 | 0 | 6 | 9 | 21 | 11 | 15 | 41 | 15 | 47 | 30 | 0 | 0 | 7 | 1 |
| CENTER HILL | 13 | 28 | 24 | 22 | 15 | 36 | 0 | 20 | 2 | 9 | 1 | 5 | 10 | 20 | 6 | 13 | 19 | 14 | 25 | 18 | 1 | 0 | 0 | 0 |
| OLD HICKORY | 5 | 20 | 1 | 12 | 8 | 37 | 0 | 22 | 3 | 11 | 0 | 7 | 17 | 12 | 8 | 13 | 44 | 22 | 44 | 33 | 3 | 1 | 3 | 2 |
| CHEATHAM | 28 | 22 | 12 | 24 | 2 | 4 | 0 | 2 | 8 | 6 | 0 | 6 | 6 | 6 | 1 | 5 | 31 | 30 | 32 | 31 | 4 | 1 | 11 | 4 |
| DISTRICT WT AVERAGE | 16 | 20 | 15 | 17 | 7 | 32 | 0 | 16 | 4 | 10 | 1 | 6 | 11 | 18 | 11 | 14 | 35 | 19 | 34 | 29 | 2 | 1 | 3 | 2 |

| PROJECT | CAMPING ON PROJECT (%) | | | | STAYING IN AREA (%) | | | | CAMPING ON PROJ. AND STAYING IN AREA (%) | | | | AVG. DURATION OF VISIT CAMPING ON PROJ (Days) | | | | AVG. DURATION OF VISIT STAYING IN AREA (Days) | | | | AVG. DURATION OF VISIT DAY USE (Hours) | | | |
|---------------------|------------------------|----|------|--------|---------------------|----|------|--------|--|----|------|--------|---|-----|------|--------|---|-----|------|--------|--|-----|------|--------|
| | SUM | | FALL | WT AVG | SUM | | FALL | WT AVG | SUM | | FALL | WT AVG | SUM | | FALL | WT AVG | SUM | | FALL | WT AVG | SUM | | FALL | WT AVG |
| | SP | | | | SP | | | | SP | | | | SP | | | | SP | | | | SP | | | |
| LAKE CUMBERLAND | 13 | 33 | 6 | 19 | 14 | 32 | 25 | 23 | 27 | 65 | 31 | 41 | 3.6 | 4.9 | 2.7 | 3.9 | 3.0 | 5.4 | 3.6 | 4.0 | 3.0 | 3.0 | 3.4 | 3.0 |
| DALE HOLLOW | 15 | 59 | 17 | 36 | 6 | 11 | 4 | 8 | 21 | 70 | 21 | 44 | 4.8 | 7.6 | 3.0 | 5.7 | 4.7 | 7.2 | 3.9 | 5.7 | 2.5 | 3.0 | 2.6 | 2.8 |
| CENTER HILL | 15 | 19 | 12 | 16 | 3 | 3 | 5 | 3 | 18 | 22 | 17 | 19 | 4.9 | 4.8 | 4.1 | 4.7 | 4.0 | 7.0 | 2.4 | 4.9 | 5.4 | 5.4 | 5.0 | 5.3 |
| OLD HICKORY | 12 | 16 | 18 | 15 | 0 | 0 | 0 | 0 | 12 | 16 | 18 | 15 | 2.4 | 4.5 | 2.1 | 3.5 | 0.0 | 0.0 | 0.0 | 0.0 | 2.1 | 3.0 | 1.9 | 2.5 |
| CHEATHAM | 8 | 12 | 12 | 10 | 1 | 2 | 1 | 1 | 9 | 14 | 13 | 11 | 2.4 | 2.7 | 2.0 | 2.4 | 2.5 | 2.6 | 3.0 | 2.7 | 2.9 | 3.0 | 3.3 | 3.0 |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| DISTRICT WT AVERAGE | 12 | 27 | 11 | 18 | 6 | 11 | 10 | 9 | 19 | 38 | 22 | 27 | 3.6 | 4.9 | 3.0 | 4.0 | 3.3 | 5.9 | 3.1 | 4.3 | 3.3 | 3.7 | 3.6 | 3.5 |

DISTRICT: NASHVILLE

YEAR: 1968

| PLAN FORMULATION STUDIES - RECREATION | | | | | | | | | | | | RECREATION USE DATA SUMMARY | | | | | | | | | | | | |
|---------------------------------------|-------------------------|-------|------|-------|--------------------------|-----|------|--------|----------------------------|-----|------|-----------------------------|---------------------------------|-----|------|--------|----------------------------------|-----|------|--------|-------------|-----|------|--------|
| PROJECT | NO. OF PERSONS SURVEYED | | | | % OF VISITORS ON WEEKEND | | | | NO. OF PERSONS PER VEHICLE | | | | % OF VEHICLES WITH BOAT-TRAILER | | | | % OF VEHICLES WITH HOUSE-TRAILER | | | | FISHING (%) | | | |
| | SP | SUM | FALL | TOTAL | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG |
| COTTAGE GROVE | 714 | 856 | 89 | 1,659 | 39 | 74 | 57 | 57 | 3.4 | 3.4 | 2.6 | 3.3 | 33 | 28 | 2 | 28 | 0 | 0 | 0 | 0 | 20 | 7 | 34 | 15 |
| DETROIT | 993 | 1,692 | 732 | 3,417 | 47 | 54 | 53 | 51 | 2.5 | 3.7 | 3.2 | 3.2 | 31 | 32 | 29 | 31 | 3 | 4 | 4 | 4 | 70 | 46 | 59 | 57 |
| DORENA | 626 | 860 | 167 | 1,653 | 60 | 65 | 43 | 60 | 2.9 | 3.5 | 2.3 | 3.1 | 18 | 24 | 16 | 20 | 0 | 4 | 1 | 2 | 49 | 28 | 49 | 40 |
| FERN RIDGE | 2,411 | 5,410 | 794 | 8,615 | 63 | 47 | 66 | 53 | 2.8 | 3.4 | 2.5 | 3.1 | 14 | 10 | 6 | 11 | 0 | 0 | 0 | 0 | 7 | 1 | 2 | 3 |
| HILLS CREEK | 263 | 799 | 100 | 1,162 | 84 | 81 | 67 | 80 | 2.8 | 3.2 | 2.4 | 3.0 | 17 | 11 | 0 | 11 | 2 | 4 | 13 | 5 | 46 | 24 | 10 | 27 |
| LOOKOUT POINT | 693 | 2,572 | 243 | 3,508 | 77 | 58 | 50 | 62 | 2.8 | 3.4 | 2.6 | 3.2 | 15 | 15 | 6 | 14 | 4 | 1 | 0 | 2 | 11 | 3 | 3 | 5 |
| THE DALLES | 744 | 2,084 | 474 | 3,302 | 51 | 52 | 54 | 52 | 3.0 | 3.5 | 2.6 | 3.2 | 5 | 6 | 2 | 5 | 3 | 2 | 5 | 3 | 33 | 10 | 5 | 15 |
| DISTRICT WT AVERAGE | | | | | 58 | 55 | 57 | 56 | 2.9 | 3.4 | 2.7 | 3.2 | 19 | 15 | 18 | 16 | 1 | 1 | 2 | 2 | 29 | 11 | 23 | 18 |

| PROJECT | PICKICKING (%) | | | | SWIMMING (%) | | | | WATER SKIING (%) | | | | PLEASURE BOATING (%) | | | | SIGHTSEEING (%) | | | | OTHERS (%) | | | |
|---------------------|----------------|-----|------|--------|--------------|-----|------|--------|------------------|-----|------|--------|----------------------|-----|------|--------|-----------------|-----|------|--------|------------|-----|------|--------|
| | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG |
| COTTAGE GROVE | 8 | 46 | 31 | 28 | 13 | 12 | 0 | 11 | 23 | 29 | 0 | 24 | 10 | 8 | 0 | 8 | 19 | 18 | 34 | 20 | 18 | 8 | 22 | 14 |
| DETROIT | 14 | 43 | 42 | 33 | 0 | 20 | 16 | 12 | 0 | 14 | 11 | 8 | 2 | 5 | 4 | 4 | 13 | 23 | 17 | 18 | 0 | 0 | 0 | 0 |
| DORENA | 30 | 22 | 10 | 24 | 0 | 10 | 0 | 4 | 1 | 7 | 1 | 4 | 3 | 17 | 7 | 10 | 15 | 23 | 24 | 20 | 13 | 10 | 15 | 12 |
| FERN RIDGE | 21 | 36 | 14 | 30 | 8 | 26 | 0 | 18 | 10 | 13 | 4 | 11 | 21 | 11 | 27 | 15 | 17 | 12 | 41 | 16 | 23 | 18 | 11 | 19 |
| HILLS CREEK | 20 | 59 | 0 | 43 | 3 | 28 | 0 | 19 | 0 | 11 | 0 | 7 | 4 | 1 | 0 | 2 | 5 | 11 | 4 | 9 | 27 | 10 | 35 | 17 |
| LOOKOUT POINT | 20 | 41 | 4 | 33 | 3 | 29 | 0 | 20 | 7 | 15 | 0 | 12 | 18 | 8 | 10 | 11 | 24 | 19 | 49 | 23 | 22 | 8 | 12 | 12 |
| THE DALLES | 21 | 41 | 22 | 33 | 0 | 26 | 0 | 15 | 0 | 1 | 0 | 1 | 2 | 4 | 1 | 3 | 42 | 21 | 65 | 34 | 3 | 1 | 0 | 1 |
| DISTRICT WT AVERAGE | 19 | 39 | 21 | 31 | 5 | 24 | 4 | 15 | 7 | 13 | 4 | 10 | 11 | 9 | 11 | 10 | 19 | 17 | 36 | 20 | 15 | 11 | 9 | 12 |

| PROJECT | CAMPING ON PROJECT (%) | | | | STAYING IN AREA (%) | | | | CAMPING ON PROJ. AND STAYING IN AREA (%) | | | | AVG. DURATION OF VISIT CAMPING ON PROJ (Days) | | | | AVG. DURATION OF VISIT STAYING IN AREA (Days) | | | | AVG. DURATION OF VISIT DAY USE (Hours) | | | |
|---------------------|------------------------|-----|------|--------|---------------------|-----|------|--------|--|-----|------|--------|---|-----|------|--------|---|-----|------|--------|--|-----|------|--------|
| | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG |
| COTTAGE GROVE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.1 | 3.1 | 1.5 | 3.0 |
| DETROIT | 13 | 17 | 22 | 17 | 6 | 13 | 5 | 9 | 19 | 30 | 27 | 26 | 3.0 | 4.5 | 3.5 | 3.8 | 8.6 | 3.9 | 2.0 | 5.1 | 4.4 | 3.8 | 4.5 | 4.2 |
| DORENA | 3 | 19 | 1 | 10 | 0 | 0 | 0 | 0 | 3 | 19 | 1 | 10 | 2.1 | 3.8 | 2.0 | 2.9 | 0.0 | 0.0 | 0.0 | 0.0 | 2.9 | 2.7 | 2.9 | 2.8 |
| FERN RIDGE | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 3.3 | 0.0 | 3.3 | 2.3 | 2.8 | 2.3 | 2.6 |
| HILLS CREEK | 17 | 20 | 50 | 23 | 0 | 1 | 0 | 1 | 17 | 21 | 50 | 24 | 2.0 | 3.1 | 3.7 | 2.9 | 0.0 | 2.0 | 0.0 | 2.0 | 7.7 | 2.8 | 2.1 | 3.8 |
| LOOKOUT POINT | 4 | 7 | 7 | 6 | 1 | 0 | 0 | 0 | 5 | 7 | 7 | 6 | 3.5 | 2.7 | 2.0 | 2.8 | 2.0 | 0.0 | 0.0 | 2.0 | 2.3 | 2.5 | 1.2 | 2.3 |
| THE DALLES | 2 | 3 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 3 | 0 | 2 | 2.7 | 2.0 | 0.0 | 2.2 | 2.0 | 0.0 | 0.0 | 2.0 | 2.3 | 2.8 | 1.5 | 2.4 |
| DISTRICT WT AVERAGE | 5 | 6 | 8 | 6 | 1 | 1 | 1 | 1 | 6 | 7 | 9 | 7 | 2.5 | 3.1 | 2.6 | 2.6 | 4.9 | 3.3 | 2.0 | 3.1 | 3.0 | 2.9 | 2.6 | 2.9 |

DISTRICT: PORTLAND

YEAR: 1966

PLAN FORMULATION STUDIES - RECREATION

RECREATION USE DATA SUMMARY

| PROJECT | NO. OF PERSONS SURVEYED | | | % OF VISITORS ON WEEKEND | | | NO. OF PERSONS PER VEHICLE | | | % OF VEHICLES WITH BOAT-TRAILER | | | % OF VEHICLES WITH HOUSE-TRAILER | | | FISHING (%) | | |
|---------------------|-------------------------|-------|--------|--------------------------|------|--------|----------------------------|------|--------|---------------------------------|------|--------|----------------------------------|------|--------|-------------|------|--------|
| | SP | FALL | TOTAL | SP | FALL | WT AVG | SP | FALL | WT AVG | SP | FALL | WT AVG | SP | FALL | WT AVG | SP | FALL | WT AVG |
| | SUM | FALL | TOTAL | SUM | FALL | WT AVG | SUM | FALL | WT AVG | SUM | FALL | WT AVG | SUM | FALL | WT AVG | SUM | FALL | WT AVG |
| COTTAGE GROVE | 1,087 | 2,380 | 3,467 | 40 | 54 | 49 | 3.3 | 3.9 | 3.7 | 14 | 20 | 18 | 1 | 2 | 2 | 4 | 3 | 3 |
| DETROIT | 3,629 | 1,112 | 4,741 | 61 | 58 | 60 | 4.1 | 3.6 | 4.0 | 33 | 22 | 30 | 4 | 1 | 3 | 35 | 9 | 28 |
| DORENA | 919 | | 919 | 54 | | 54 | 3.0 | | 3.0 | 19 | | 19 | 1 | | 1 | 28 | | 28 |
| FERN RIDGE | 6,655 | 7,487 | 14,142 | 64 | 43 | 53 | 3.4 | 3.6 | 3.5 | 10 | 10 | 10 | 1 | 1 | 1 | 4 | 1 | 2 |
| HILLS CREEK | 561 | 1,084 | 1,645 | 32 | 51 | 44 | 3.6 | 4.0 | 3.9 | 19 | 12 | 15 | 3 | 2 | 2 | 18 | 5 | 10 |
| LOOKOUT POINT | 2,184 | 2,478 | 4,662 | 56 | 55 | 55 | 3.0 | 3.6 | 3.3 | 13 | 15 | 14 | 3 | 5 | 4 | 8 | 4 | 6 |
| THE DALLES | 2,246 | 2,037 | 4,283 | 55 | 45 | 50 | 3.6 | 3.5 | 3.6 | 6 | 4 | 5 | 6 | 12 | 9 | 9 | 2 | 6 |
| DISTRICT WT AVERAGE | | | | 58 | 48 | 53 | 3.5 | 3.7 | 3.6 | 15 | 12 | 14 | 3 | 3 | 3 | 13 | 3 | 8 |

| PROJECT | PICNICKING (%) | | | SWIMMING (%) | | | WATER SKIING (%) | | | PLEASURE BOATING (%) | | | SIGHTSEEING (%) | | | OTHERS (%) | | |
|---------------------|----------------|------|--------|--------------|------|--------|------------------|------|--------|----------------------|------|--------|-----------------|------|--------|------------|------|--------|
| | SP | FALL | WT AVG | SP | FALL | WT AVG | SP | FALL | WT AVG | SP | FALL | WT AVG | SP | FALL | WT AVG | SP | FALL | WT AVG |
| | SUM | FALL | WT AVG | SUM | FALL | WT AVG | SUM | FALL | WT AVG | SUM | FALL | WT AVG | SUM | FALL | WT AVG | SUM | FALL | WT AVG |
| COTTAGE GROVE | 31 | 52 | 45 | 46 | 64 | 58 | 15 | 32 | 26 | 16 | 8 | 11 | 21 | 6 | 11 | 4 | 2 | 3 |
| DETROIT | 60 | 44 | 56 | 50 | 39 | 47 | 25 | 28 | 26 | 4 | 21 | 8 | 16 | 8 | 14 | 2 | 6 | 3 |
| DORENA | 42 | | 42 | 15 | | 15 | 5 | | 5 | 7 | | 7 | 15 | | 15 | 10 | | 10 |
| FERN RIDGE | 43 | 34 | 38 | 55 | 71 | 63 | 14 | 15 | 15 | 11 | 6 | 8 | 11 | 10 | 10 | 4 | 3 | 3 |
| HILLS CREEK | 31 | 46 | 40 | 55 | 87 | 75 | 4 | 16 | 12 | 9 | 5 | 6 | 4 | 5 | 5 | 10 | 2 | 5 |
| LOOKOUT POINT | 35 | 36 | 35 | 26 | 45 | 35 | 11 | 24 | 17 | 12 | 12 | 12 | 22 | 13 | 17 | 12 | 6 | 9 |
| THE DALLES | 39 | 35 | 37 | 25 | 11 | 18 | 2 | 2 | 2 | 4 | 4 | 4 | 41 | 52 | 46 | 1 | 1 | 1 |
| DISTRICT WT AVERAGE | 44 | 38 | 41 | 44 | 57 | 51 | 14 | 18 | 16 | 9 | 8 | 8 | 18 | 15 | 17 | 5 | 3 | 4 |

| PROJECT | CAMPING ON PROJECT (%) | | | STAYING IN AREA (%) | | | CAMPING ON PROJ. AND STAYING IN AREA (%) | | | AVG. DURATION OF VISIT CAMPING ON PROJ. (Days) | | | AVG. DURATION OF VISIT STAYING IN AREA (Days) | | | AVG. DURATION OF VISIT DAY USE (Hours) | | |
|---------------------|------------------------|------|--------|---------------------|------|--------|--|------|--------|--|------|--------|---|------|--------|--|------|--------|
| | SP | FALL | WT AVG | SP | FALL | WT AVG | SP | FALL | WT AVG | SP | FALL | WT AVG | SP | FALL | WT AVG | SP | FALL | WT AVG |
| | SUM | FALL | WT AVG | SUM | FALL | WT AVG | SUM | FALL | WT AVG | SUM | FALL | WT AVG | SUM | FALL | WT AVG | SUM | FALL | WT AVG |
| COTTAGE GROVE | 2 | 6 | 5 | 0 | 0 | 0 | 2 | 6 | 5 | 7.0 | 3.1 | 4.5 | 0.0 | 0.0 | 0.0 | 2.8 | 3.4 | 3.2 |
| DETROIT | 12 | 12 | 12 | 1 | 1 | 1 | 13 | 13 | 13 | 5.0 | 3.4 | 4.6 | 3.4 | 8.0 | 4.6 | 4.9 | 3.7 | 4.6 |
| DORENA | 6 | | 6 | 1 | | 1 | 7 | | 7 | 8.3 | | 8.3 | 4.0 | | 4.0 | 3.2 | | 3.2 |
| FERN RIDGE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.0 | 2.7 | 2.8 |
| HILLS CREEK | 8 | 6 | 7 | 0 | 0 | 0 | 8 | 6 | 7 | 3.3 | 3.5 | 3.4 | 0.0 | 0.0 | 0.0 | 2.8 | 3.6 | 3.3 |
| LOOKOUT POINT | 7 | 7 | 7 | 0 | 0 | 0 | 7 | 7 | 7 | 2.9 | 4.5 | 3.7 | 0.0 | 0.0 | 0.0 | 2.3 | 3.1 | 2.7 |
| THE DALLES | 3 | 3 | 3 | 0 | 0 | 0 | 3 | 3 | 3 | 2.3 | 2.6 | 2.4 | 0.0 | 0.0 | 0.0 | 2.5 | 1.9 | 2.2 |
| DISTRICT WT AVERAGE | 5 | 4 | 4 | 0 | 0 | 0 | 5 | 4 | 4 | 4.5 | 3.5 | 4.0 | 3.5 | 8.0 | 4.5 | 3.2 | 2.9 | 3.0 |

DISTRICT: PORTLAND

YEAR: 1967

PLAN FORMULATION STUDIES - RECREATION RECREATION USE DATA SUMMARY

| PROJECT | NO. OF PERSONS SURVEYED | | | % OF VISITORS ON WEEKEND | | | NO. OF PERSONS PER VEHICLE | | | % OF VEHICLES WITH BOAT-TRAILER | | | % OF VEHICLES WITH HOUSE-TRAILER | | | FISHING (%) | | |
|---------------------|-------------------------|-------|--------|--------------------------|------|--------|----------------------------|------|--------|---------------------------------|------|--------|----------------------------------|------|--------|-------------|------|--------|
| | SP | FALL | TOTAL | SP | FALL | WT AVG | SP | FALL | WT AVG | SP | FALL | WT AVG | SP | FALL | WT AVG | SP | FALL | WT AVG |
| | SUM | FALL | TOTAL | SP | FALL | WT AVG | SP | FALL | WT AVG | SP | FALL | WT AVG | SP | FALL | WT AVG | SP | FALL | WT AVG |
| COTTAGE GROVE | 1,236 | 1,442 | 2,678 | 61 | 55 | 58 | 3.5 | 3.5 | 3.5 | 13 | 21 | 17 | 1 | 1 | 1 | 3 | 4 | 4 |
| DETROIT | 2,894 | | 2,894 | 61 | | 61 | 4.2 | | | 20 | | | 7 | | 7 | 33 | | 33 |
| DORENA | 749 | 1,154 | 1,903 | 70 | 60 | 64 | 3.6 | 3.4 | | 3.5 | 24 | 20 | 22 | 2 | 7 | 5 | 30 | 15 |
| FERN RIDGE | 9,175 | 8,758 | 17,933 | 74 | 58 | 66 | 3.5 | 3.7 | | 3.6 | 8 | 9 | 8 | 1 | 1 | 1 | 1 | 1 |
| HILLS CREEK | 404 | 1,010 | 1,414 | 74 | 55 | 60 | 3.6 | 3.4 | | 3.5 | 17 | 13 | 14 | 3 | 4 | 4 | 30 | 11 |
| LOOKOUT POINT | 1,632 | 3,337 | 4,969 | 67 | 56 | 60 | 3.3 | 3.6 | | 3.5 | 16 | 13 | 14 | 3 | 4 | 4 | 3 | 5 |
| THE DALLES | 2,124 | 1,405 | 3,529 | 37 | 43 | 40 | 3.8 | 2.9 | | 3.4 | 5 | 7 | 6 | 6 | 9 | 7 | 6 | 5 |
| DISTRICT WT AVERAGE | | | | 66 | 56 | 61 | 3.6 | 3.6 | | 3.6 | 11 | 12 | 11 | 3 | 3 | 3 | 8 | 4 |

| PROJECT | PICNICKING (%) | | | SWIMMING (%) | | | WATER SKIING (%) | | | PLEASURE BOATING (%) | | | SIGHTSEEING (%) | | | OTHERS (%) | | |
|---------------------|----------------|------|--------|--------------|------|--------|------------------|------|--------|----------------------|------|--------|-----------------|------|--------|------------|------|--------|
| | SP | FALL | WT AVG | SP | FALL | WT AVG | SP | FALL | WT AVG | SP | FALL | WT AVG | SP | FALL | WT AVG | SP | FALL | WT AVG |
| | SUM | FALL | WT AVG | SP | FALL | WT AVG | SP | FALL | WT AVG | SP | FALL | WT AVG | SP | FALL | WT AVG | SP | FALL | WT AVG |
| COTTAGE GROVE | 41 | 71 | 57 | 62 | 49 | 55 | 24 | 33 | 29 | 10 | 19 | 15 | 8 | 12 | 10 | 4 | 2 | 3 |
| DETROIT | 48 | | 48 | 50 | | 50 | 17 | | 17 | 10 | | | 18 | | 18 | 2 | | 2 |
| DORENA | 40 | 49 | 45 | 32 | 30 | 31 | 7 | 17 | 13 | 21 | 14 | 17 | 8 | 10 | 9 | 7 | 8 | 8 |
| FERN RIDGE | 41 | 42 | 41 | 56 | 66 | 61 | 12 | 11 | 12 | 10 | 9 | 10 | 15 | 12 | 14 | 4 | 5 | 4 |
| HILLS CREEK | 36 | 57 | 51 | 46 | 45 | 45 | 4 | 9 | 6 | 9 | 4 | 5 | 4 | 8 | 7 | 9 | 2 | 4 |
| LOOKOUT POINT | 42 | 44 | 43 | 47 | 51 | 50 | 14 | 16 | 15 | 13 | 7 | 9 | 12 | 9 | 10 | 5 | 6 | 6 |
| THE DALLES | 24 | 33 | 28 | 14 | 5 | 10 | 1 | 2 | 1 | 3 | 4 | 3 | 52 | 48 | 50 | 1 | 1 | 1 |
| DISTRICT WT AVERAGE | 40 | 45 | 42 | 49 | 52 | 50 | 12 | 13 | 12 | 10 | 9 | 10 | 18 | 15 | 17 | 4 | 5 | 4 |

| PROJECT | CAMPING ON PROJECT (%) | | | STAYING IN AREA (%) | | | CAMPING ON PROJ. AND STAYING IN AREA (%) | | | AVG. DURATION OF VISIT CAMPING ON PROJ. (Days) | | | AVG. DURATION OF VISIT STAYING IN AREA (Days) | | | AVG. DURATION OF VISIT DAY USE (Hours) | | |
|---------------------|------------------------|------|--------|---------------------|------|--------|--|------|--------|--|------|--------|---|------|--------|--|------|--------|
| | SP | FALL | WT AVG | SP | FALL | WT AVG | SP | FALL | WT AVG | SP | FALL | WT AVG | SP | FALL | WT AVG | SP | FALL | WT AVG |
| | SUM | FALL | WT AVG | SP | FALL | WT AVG | SP | FALL | WT AVG | SP | FALL | WT AVG | SP | FALL | WT AVG | SP | FALL | WT AVG |
| COTTAGE GROVE | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 0.0 | 14.0 | 7.4 | 7.0 | 0.0 | 3.5 | 3.2 | 3.4 | 3.3 |
| DETROIT | 21 | | 21 | 7 | | 7 | 28 | | | 4.5 | | 4.5 | 6.1 | | 6.1 | 5.0 | | 5.0 |
| DORENA | 4 | 20 | 14 | 1 | 1 | 1 | 5 | 21 | 15 | 2.6 | 2.9 | 2.8 | 0.0 | 7.0 | 4.3 | 3.2 | 3.4 | 3.3 |
| FERN RIDGE | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 0.0 | 0.0 | 0.0 | 2.6 | 0.0 | 1.4 | 3.3 | 3.1 | 3.2 |
| HILLS CREEK | 11 | 15 | 14 | 1 | 1 | 1 | 12 | 16 | 15 | 3.7 | 3.9 | 3.8 | 2.0 | 0.0 | 0.5 | 4.0 | 3.3 | 3.5 |
| LOOKOUT POINT | 2 | 9 | 7 | 1 | 1 | 1 | 3 | 10 | 8 | 2.8 | 3.3 | 3.1 | 7.0 | 2.0 | 3.7 | 2.5 | 3.1 | 2.9 |
| THE DALLES | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2.1 | 2.0 | 2.1 | 2.0 | 0.0 | 1.1 | 2.2 | 2.0 | 2.1 |
| DISTRICT WT AVERAGE | 4 | 5 | 4 | 2 | 1 | 2 | 6 | 6 | 6 | 1.3 | 2.4 | 1.8 | 3.7 | 0.9 | 2.3 | 3.3 | 3.0 | 3.2 |

DISTRICT: PORTLAND

YEAR: 1968

| PLAN FORMULATION STUDIES - RECREATION | | | | | | | | | | | | RECREATION USE DATA SUMMARY | | | | | | | | | | | | | |
|---------------------------------------|-------------------------|-------|-------|--------|--------------------------|-----|------|--------|----------------------------|-----|------|-----------------------------|---------------------------------|-----|------|--------|----------------------------------|-----|------|--------|-------------|-----|------|--------|----|
| PROJECT | NO. OF PERSONS SURVEYED | | | | % OF VISITORS ON WEEKEND | | | | NO. OF PERSONS PER VEHICLE | | | | % OF VEHICLES WITH BOAT-TRAILER | | | | % OF VEHICLES WITH HOUSE-TRAILER | | | | FISHING (%) | | | | |
| | SP | SUM | FALL | TOTAL | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | |
| BLACK BUTTE | | 1,355 | 262 | 1,617 | | 64 | 64 | 64 | | 3.5 | 2.5 | 3.3 | | 25 | 2 | 21 | | 0 | 1 | 0 | | 3 | 24 | 7 | |
| ENGLEBRIGHT | 989 | 1,655 | 123 | 2,767 | 68 | 56 | 48 | 65 | | 3.0 | 3.3 | 3.2 | 21 | 31 | 8 | 27 | | 0 | 6 | 1 | 20 | 11 | 11 | 13 | |
| ISABELLA | 3,509 | 4,137 | 1,899 | 9,545 | 78 | 58 | 72 | 66 | | 2.9 | 3.4 | 3.2 | 32 | 27 | 19 | 28 | 4 | 6 | 6 | 5 | 80 | 69 | 81 | 74 | |
| NEW HOGAN | 1,034 | 1,017 | 247 | 2,298 | 89 | 68 | 62 | 76 | | 3.5 | 3.9 | 3.0 | 3.5 | 12 | 26 | 0 | 16 | 1 | 2 | 1 | 1 | 4 | 1 | 10 | 4 |
| NORTH FORK | 425 | 651 | 14 | 1,090 | 74 | 71 | 57 | 70 | | 3.5 | 3.7 | 3.4 | 5 | 18 | 0 | 13 | 0 | 0 | 0 | 0 | 4 | 3 | 27 | 6 | |
| PINE FLAT | 3,960 | 3,271 | 1,324 | 8,555 | 72 | 65 | 63 | 67 | | 3.2 | 3.4 | 2.7 | 3.2 | 17 | 18 | 16 | 17 | 0 | 2 | 0 | 1 | 35 | 35 | 46 | 37 |
| SUCCESS | 4,642 | 4,651 | 1,730 | 11,023 | 67 | 50 | 58 | 58 | | 3.0 | 3.4 | 2.5 | 3.2 | 10 | 16 | 6 | 12 | 1 | 1 | 0 | 1 | 44 | 31 | 50 | 38 |
| TERMINUS | 2,968 | 2,873 | 1,195 | 7,036 | 76 | 62 | 75 | 68 | | 3.0 | 3.5 | 3.0 | 3.3 | 12 | 18 | 17 | 16 | 1 | 3 | 0 | 2 | 38 | 43 | 38 | 41 |
| DISTRICT WT AVERAGE | | | | | 73 | 59 | 66 | 65 | | 3.0 | 3.4 | 2.6 | 3.2 | 21 | 22 | 11 | 20 | 2 | 3 | 3 | 3 | 53 | 45 | 56 | 49 |

| PROJECT | PICNICKING (%) | | | | SWIMMING (%) | | | | WATER SKIING (%) | | | | PLEASURE BOATING (%) | | | | SIGHTSEEING (%) | | | | OTHERS (%) | | | |
|---------------------|----------------|-----|------|--------|--------------|-----|------|--------|------------------|-----|------|--------|----------------------|-----|------|--------|-----------------|-----|------|--------|------------|-----|------|--------|
| | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG |
| BLACK BUTTE | | 53 | 9 | 44 | | 71 | 0 | 57 | | 39 | 3 | 32 | | | 16 | 4 | 14 | | | 15 | 64 | 24 | | |
| ENGLEBRIGHT | 33 | 61 | 8 | 51 | 10 | 56 | 0 | 42 | 28 | 51 | 2 | 42 | 37 | 68 | 13 | 57 | 28 | 12 | 53 | 19 | | | | |
| ISABELLA | 17 | 48 | 25 | 35 | 1 | 34 | 0 | 20 | 1 | 17 | 2 | 11 | 3 | 5 | 1 | 4 | 10 | 5 | 8 | 7 | | | | |
| NEW HOGAN | 34 | 57 | 19 | 41 | 6 | 46 | 0 | 22 | 12 | 41 | 0 | 22 | 23 | 19 | 0 | 17 | 50 | 19 | 78 | 42 | | | | |
| NORTH FORK | 39 | 62 | 43 | 54 | 6 | 43 | 0 | 29 | 2 | 36 | 0 | 23 | 16 | 6 | 0 | 8 | 53 | 32 | 40 | 38 | | | | |
| PINE FLAT | 21 | 32 | 11 | 21 | 1 | 7 | 0 | 4 | 3 | 25 | 1 | 14 | 9 | 6 | 6 | 7 | 38 | 22 | 33 | 29 | | | | |
| SUCCESS | 26 | 36 | 26 | 31 | 0 | 10 | 0 | 5 | 2 | 15 | 0 | 8 | 3 | 6 | 1 | 4 | 35 | 23 | 36 | 29 | | | | |
| TERMINUS | 19 | 20 | 18 | 19 | 2 | 9 | 1 | 6 | 3 | 17 | 3 | 11 | 7 | 9 | 4 | 8 | 38 | 18 | 39 | 27 | | | | |
| DISTRICT WT AVERAGE | 21 | 40 | 20 | 31 | 1 | 24 | 0 | 14 | 3 | 21 | 1 | 13 | 7 | 19 | 3 | 8 | 27 | 15 | 29 | 20 | | | | |

| PROJECT | CAMPING ON PROJECT (%) | | | | STAYING IN AREA (%) | | | | CAMPING ON PROJ. AND STAYING IN AREA (%) | | | | AVG. DURATION OF VISIT CAMPING ON PROJ (Days) | | | | AVG. DURATION OF VISIT STAYING IN AREA (Days) | | | | AVG. DURATION OF VISIT DAY USE (Hours) | | | | | | | | | | | | | | |
|---------------------|------------------------|----|------|----|---------------------|---|-----|----|--|----|------|----|---|----|-----|-----|---|-----|------|-----|--|-----|------|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|
| | SUM | | FALL | | WT | | AVG | | SUM | | FALL | | WT | | AVG | | SUM | | FALL | | WT | | AVG | | SUM | | FALL | | WT | | AVG | | | | |
| | SP | | | | SP | | | | SP | | | | SP | | | | SP | | | | SP | | | | SP | | | | SP | | | | | | |
| BLACK BUTTE | | | 3 | 1 | 3 | | | | | 2 | 0 | 2 | | | | 5 | 1 | 5 | | | | | | | | | 3.3 | 0.0 | 3.3 | | | 3.6 | 1.8 | 3.2 | |
| ENGLEBRIGHT | | | 0 | 4 | 0 | 3 | | | 0 | 0 | 0 | 0 | | | 0 | 4 | 0 | 3 | | | | | | | | | 0.0 | 0.0 | 0.0 | | | 3.8 | 5.8 | 2.5 | 4.8 |
| ISABELLA | | 33 | 59 | 42 | 49 | | 18 | 17 | 25 | 18 | | 67 | 67 | 67 | 51 | 76 | 67 | 4.0 | | 4.9 | 5.3 | 4.7 | 2.6 | | | | 5.7 | 4.0 | 4.5 | | | 2.9 | 9.5 | 8.3 | 6.9 |
| NEW HOGAN | | 1 | 4 | 1 | 2 | | 1 | 0 | 0 | 0 | | 2 | 4 | 1 | 2 | 4 | 1 | 2 | | 3.8 | 2.8 | 2.0 | 3.1 | 2.6 | | | 0.0 | 0.0 | 2.6 | 2.8 | 3.9 | 1.4 | 3.1 | | |
| NORTH FORK | | 0 | 5 | 0 | 3 | | 3 | 0 | 0 | 1 | | 3 | 5 | 0 | 4 | 0 | 4 | 0 | | 0.0 | 3.3 | 0.0 | 3.3 | 3.3 | | | 0.0 | 0.0 | 3.3 | 2.1 | 4.0 | 1.5 | 3.1 | | |
| PINE FLAT | | 1 | 7 | 4 | 4 | | 0 | 10 | 1 | 5 | | 1 | 17 | 5 | 9 | 8.2 | 4.5 | 3.5 | | 5.9 | 2.4 | 7.2 | 18.4 | | | 7.3 | 3.1 | 4.3 | 3.2 | 3.6 | | | 3.2 | 3.6 | |
| SUCCESS | | 1 | 3 | 2 | 2 | | 1 | 0 | 0 | 0 | | 2 | 3 | 2 | 2 | 2.0 | 3.2 | 2.0 | | 2.0 | 2.0 | 2.8 | 9.0 | | | 0.0 | 4.9 | 3.2 | 3.5 | 2.9 | 3.3 | | | 3.3 | |
| TERMINUS | | 1 | 12 | 9 | 8 | | 1 | 1 | 0 | 1 | | 2 | 13 | 9 | 9 | 3.5 | 3.9 | 2.3 | | 3.5 | 3.5 | 1.5 | 4.2 | | | 0.0 | 2.8 | 3.2 | 3.4 | 3.0 | 3.3 | | | 3.3 | |
| DISTRICT WT AVERAGE | | 14 | 26 | 18 | 21 | | 8 | 9 | 10 | 8 | | 22 | 35 | 28 | 29 | 4.2 | 4.2 | 3.5 | | 4.1 | 2.4 | 6.0 | 5.2 | | | 4.7 | 3.0 | 6.1 | 5.0 | 4.8 | | | 4.8 | | |

DISTRICT: SACRAMENTO

YEAR: 1964

| PLAN FORMULATION STUDIES - RECREATION | | | | | | | | | | | | RECREATION USE DATA SUMMARY | | | | | | | | | | | | |
|---------------------------------------|-------------------------|-------|-------|--------|--------------------------|-----|------|--------|----------------------------|-----|------|-----------------------------|---------------------------------|-----|------|--------|----------------------------------|-----|------|--------|-------------|-----|------|--------|
| PROJECT | NO. OF PERSONS SURVEYED | | | | % OF VISITORS ON WEEKEND | | | | NO. OF PERSONS PER VEHICLE | | | | % OF VEHICLES WITH BOAT-TRAILER | | | | % OF VEHICLES WITH HOUSE-TRAILER | | | | FISHING (%) | | | |
| | SP | SUM | FALL | TOTAL | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG |
| BLACK BUTTE | 1,309 | 1,844 | 501 | 3,654 | 89 | 65 | 78 | 74 | 2.9 | 3.7 | 3.0 | 3.2 | 2 | 28 | 14 | 17 | 0 | 1 | 0 | 1 | 7 | 16 | 43 | 17 |
| ENGLEBRIGHT | 760 | 1,285 | 512 | 2,557 | 71 | 52 | 54 | 58 | 3.1 | 3.9 | 3.4 | 3.6 | 20 | 25 | 20 | 26 | 0 | 0 | 0 | 0 | 29 | 20 | 15 | 22 |
| ISABELLA | 4,907 | 4,264 | 2,025 | 11,196 | 74 | 55 | 63 | 62 | 2.8 | 3.6 | 2.6 | 3.2 | 27 | 19 | 18 | 22 | 7 | 8 | 7 | 7 | 83 | 74 | 81 | 78 |
| NEW HOGAN | 2,288 | 2,173 | 877 | 5,338 | 69 | 67 | 64 | 67 | 3.1 | 3.7 | 3.0 | 3.3 | 8 | 22 | 12 | 16 | 0 | 1 | 2 | 1 | 21 | 15 | 39 | 20 |
| PINE FLAT | 2,080 | 1,517 | 760 | 4,357 | 66 | 62 | 72 | 64 | 3.1 | 3.3 | 2.6 | 3.1 | 13 | 35 | 12 | 20 | 0 | 2 | 0 | 1 | 32 | 42 | 48 | 40 |
| SUCCESS | 4,374 | 3,125 | 1,789 | 9,288 | 66 | 56 | 63 | 60 | 2.6 | 3.2 | 2.5 | 2.9 | 6 | 21 | 10 | 14 | 0 | 0 | 1 | 0 | 43 | 40 | 49 | 42 |
| TERMINUS | 4,513 | 2,768 | 1,055 | 8,336 | 75 | 60 | 67 | 65 | 3.0 | 3.3 | 2.6 | 3.1 | 11 | 17 | 14 | 14 | 0 | 0 | 0 | 0 | 37 | 36 | 58 | 39 |
| DISTRICT WT AVERAGE | | | | | 71 | 57 | 65 | 62 | 2.8 | 3.4 | 2.6 | 3.1 | 16 | 22 | 15 | 18 | 3 | 3 | 3 | 3 | 52 | 49 | 60 | 51 |

| PROJECT | PICNICKING (%) | | | | SWIMMING (%) | | | | WATER SKIING (%) | | | | PLEASURE BOATING (%) | | | | SIGHTSEEING (%) | | | | OTHERS (%) | | | |
|---------------------|----------------|-----|------|--------|--------------|-----|------|--------|------------------|-----|------|--------|----------------------|-----|------|--------|-----------------|-----|------|--------|------------|-----|------|--------|
| | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG |
| BLACK BUTTE | 11 | 55 | 34 | 39 | 0 | 42 | 3 | 24 | 0 | 40 | 9 | 24 | 3 | 3 | 2 | 3 | 84 | 11 | 32 | 36 | 0 | 2 | 0 | 2 |
| ENGLEBRIGHT | 55 | 67 | 53 | 62 | 1 | 35 | 0 | 20 | 6 | 43 | 7 | 27 | 38 | 13 | 33 | 23 | 36 | 11 | 30 | 21 | 0 | 0 | 0 | 0 |
| ISABELLA | 29 | 14 | 19 | 19 | 0 | 34 | 0 | 19 | 1 | 17 | 1 | 10 | 2 | 0 | 1 | 1 | 6 | 3 | 7 | 4 | 0 | 0 | 0 | 0 |
| NEW HOGAN | 43 | 53 | 30 | 47 | 3 | 28 | 1 | 17 | 4 | 30 | 2 | 25 | 10 | 4 | 5 | 6 | 47 | 19 | 39 | 30 | 0 | 1 | 0 | 1 |
| PINE FLAT | 21 | 32 | 15 | 26 | 0 | 18 | 0 | 10 | 0 | 43 | 2 | 25 | 2 | 4 | 7 | 4 | 58 | 9 | 27 | 26 | 0 | 0 | 0 | 0 |
| SUCCESS | 12 | 25 | 25 | 21 | 0 | 13 | 2 | 8 | 0 | 22 | 2 | 13 | 1 | 3 | 1 | 2 | 55 | 26 | 42 | 37 | 0 | 0 | 0 | 0 |
| TERMINUS | 28 | 30 | 28 | 29 | 1 | 14 | 0 | 8 | 4 | 21 | 1 | 13 | 5 | 4 | 2 | 4 | 40 | 27 | 31 | 31 | 0 | 0 | 1 | 0 |
| DISTRICT WT AVERAGE | 27 | 23 | 26 | 26 | 0 | 25 | 0 | 14 | 1 | 25 | 2 | 15 | 4 | 3 | 3 | 3 | 34 | 13 | 23 | 20 | 0 | 0 | 0 | 0 |

| PROJECT | CAMPING ON PROJECT (%) | | | | STAYING IN AREA (%) | | | | CAMPING ON PROJ. AND STAYING IN AREA (%) | | | | AVG. DURATION OF VISIT CAMPING ON PROJ (Days) | | | | AVG. DURATION OF VISIT STAYING IN AREA (Days) | | | | AVG. DURATION OF VISIT DAY USE (Hours) | | | |
|---------------------|------------------------|-----|------|--------|---------------------|-----|------|--------|--|-----|------|--------|---|-----|------|--------|---|-----|------|--------|--|-----|------|--------|
| | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG |
| BLACK BUTTE | 0 | 3 | 1 | 2 | 2 | 2 | 0 | 2 | 2 | 5 | 1 | 4 | 0.0 | 3.5 | 2.0 | 2.0 | 2.0 | 3.3 | 0.0 | 2.3 | 1.4 | 4.1 | 3.5 | 3.1 |
| ENGLEBRIGHT | 7 | 9 | 0 | 7 | 0 | 0 | 0 | 0 | 7 | 9 | 0 | 7 | 2.5 | 6.8 | 0.0 | 4.3 | 0.0 | 0.0 | 0.0 | 0.0 | 4.1 | 5.3 | 3.7 | 4.6 |
| ISABELLA | 47 | 60 | 43 | 54 | 16 | 22 | 28 | 21 | 63 | 82 | 71 | 75 | 3.6 | 5.6 | 4.3 | 4.7 | 5.2 | 6.8 | 4.8 | 6.1 | 5.6 | 4.6 | 4.8 | 5.0 |
| NEW HOGAN | 0 | 12 | 5 | 7 | 0 | 0 | 0 | 0 | 0 | 12 | 5 | 7 | 2.7 | 6.6 | 4.6 | 4.9 | 0.0 | 3.0 | 0.0 | 3.0 | 2.5 | 4.4 | 3.3 | 3.6 |
| PINE FLAT | 2 | 27 | 3 | 16 | 0 | 17 | 1 | 10 | 2 | 44 | 4 | 26 | 3.6 | 4.1 | 2.2 | 3.6 | 3.0 | 4.2 | 2.8 | 3.6 | 2.7 | 5.3 | 3.3 | 4.1 |
| SUCCESS | 0 | 4 | 1 | 2 | 0 | 1 | 0 | 0 | 0 | 5 | 1 | 3 | 7.0 | 4.5 | 2.0 | 5.0 | 0.0 | 6.7 | 8.0 | 4.5 | 2.5 | 3.9 | 2.9 | 3.3 |
| TERMINUS | 2 | 6 | 1 | 4 | 1 | 2 | 0 | 1 | 3 | 8 | 1 | 6 | 2.1 | 4.1 | 2.9 | 3.2 | 2.4 | 5.1 | 2.0 | 3.7 | 2.9 | 3.4 | 3.2 | 3.2 |
| DISTRICT WT AVERAGE | 19 | 30 | 18 | 25 | 6 | 11 | 11 | 10 | 25 | 41 | 29 | 35 | 3.7 | 5.0 | 3.1 | 4.2 | 2.8 | 5.4 | 3.8 | 4.5 | 3.7 | 4.5 | 3.8 | 4.1 |

DISTRICT: SACRAMENTO

YEAR: 1965

| PLAN FORMULATION STUDIES - RECREATION | | | | | | | | | | RECREATION USE DATA SUMMARY | | | | | | | | | | | | | | |
|---------------------------------------|-------------------------|-------|-------|--------|--------------------------|-----|------|--------|----------------------------|-----------------------------|------|--------|---------------------------------|-----|------|--------|----------------------------------|-----|------|--------|-------------|-----|------|--------|
| PROJECT | NO. OF PERSONS SURVEYED | | | | % OF VISITORS ON WEEKEND | | | | NO. OF PERSONS PER VEHICLE | | | | % OF VEHICLES WITH BOAT-TRAILER | | | | % OF VEHICLES WITH HOUSE-TRAILER | | | | FISHING (%) | | | |
| | SP | SUM | FALL | TOTAL | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG |
| BLACK BUTTE | 2,665 | 1,680 | 346 | 4,691 | 85 | 56 | 53 | 72 | 3.3 | 3.7 | 2.6 | 3.4 | 14 | 33 | 6 | 20 | 0 | 1 | 2 | 1 | 36 | 14 | 42 | 29 |
| ENGLEBRIGHT | 1,224 | 1,350 | 415 | 2,988 | 68 | 40 | 58 | 54 | 3.1 | 3.8 | 3.4 | 3.4 | 17 | 29 | 19 | 23 | 0 | 0 | 0 | 0 | 17 | 7 | 30 | 15 |
| ISABELLA | 4,554 | 4,173 | 2,206 | 10,933 | 77 | 70 | 64 | 72 | 2.9 | 3.3 | 2.5 | 2.9 | 23 | 26 | 18 | 23 | 11 | 10 | 12 | 11 | 88 | 78 | 88 | 85 |
| NEW HOGAN | 3,361 | 2,788 | 447 | 6,596 | 82 | 56 | 67 | 70 | 3.4 | 3.7 | 2.4 | 3.4 | 18 | 30 | 5 | 22 | 4 | 2 | 4 | 3 | 28 | 34 | 50 | 32 |
| PINE FLAT | 2,599 | 2,029 | 715 | 5,343 | 79 | 67 | 72 | 74 | 3.0 | 3.7 | 2.7 | 3.2 | 22 | 30 | 12 | 23 | 0 | 0 | 0 | 0 | 43 | 19 | 43 | 35 |
| SUCCESS | 3,686 | 2,686 | 1,042 | 7,414 | 72 | 62 | 57 | 66 | 3.0 | 3.0 | 2.4 | 2.9 | 8 | 13 | 5 | 9 | 0 | 1 | 1 | 1 | 44 | 46 | 51 | 46 |
| TERMINUS | 3,256 | 2,268 | 1,170 | 6,694 | 76 | 52 | 65 | 66 | 3.1 | 3.4 | 2.7 | 3.1 | 16 | 22 | 10 | 17 | 0 | 1 | 1 | 1 | 43 | 34 | 53 | 42 |
| DISTRICT WT AVERAGE | | | | | 77 | 65 | 62 | 69 | 3.1 | 3.4 | 2.6 | 3.1 | 17 | 25 | 10 | 19 | 3 | 3 | 4 | 3 | 49 | 41 | 56 | 47 |

| PROJECT | PICNICKING (%) | | | | SWIMMING (%) | | | | WATER SKIING (%) | | | | PLEASURE BOATING (%) | | | | SIGHTSEEING (%) | | | | OTHERS (%) | | | |
|---------------------|----------------|-----|------|--------|--------------|-----|------|--------|------------------|-----|------|--------|----------------------|-----|------|--------|-----------------|-----|------|--------|------------|-----|------|--------|
| | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG |
| BLACK BUTTE | 56 | 47 | 28 | 50 | 20 | 48 | 0 | 28 | 17 | 39 | 2 | 23 | 7 | 7 | 6 | 7 | 19 | 17 | 49 | 21 | 0 | 2 | 1 | 1 |
| ENGLEBRIGHT | 57 | 67 | 56 | 61 | 21 | 61 | 3 | 36 | 16 | 59 | 2 | 33 | 23 | 7 | 10 | 14 | 31 | 9 | 31 | 21 | 0 | 0 | 0 | 0 |
| ISABELLA | 20 | 14 | 16 | 17 | 3 | 35 | 0 | 13 | 3 | 20 | 0 | 8 | 0 | 1 | 0 | 0 | 4 | 2 | 4 | 3 | 0 | 0 | 0 | 0 |
| NEW HOGAN | 27 | 34 | 16 | 29 | 20 | 40 | 0 | 26 | 19 | 39 | 0 | 25 | 5 | 6 | 2 | 5 | 21 | 12 | 35 | 19 | 1 | 1 | 2 | 1 |
| PINE FLAT | 30 | 26 | 17 | 27 | 7 | 19 | 1 | 10 | 13 | 53 | 4 | 25 | 8 | 10 | 8 | 9 | 21 | 10 | 35 | 19 | 0 | 0 | 2 | 0 |
| SUCCESS | 18 | 16 | 19 | 17 | 4 | 12 | 0 | 6 | 11 | 15 | 1 | 11 | 4 | 4 | 1 | 3 | 33 | 26 | 40 | 32 | 0 | 0 | 0 | 0 |
| TERMINUS | 33 | 22 | 18 | 27 | 4 | 17 | 1 | 8 | 14 | 23 | 1 | 14 | 5 | 4 | 3 | 4 | 22 | 21 | 35 | 24 | 0 | 0 | 0 | 0 |
| DISTRICT WT AVERAGE | 30 | 27 | 20 | 27 | 9 | 31 | 0 | 16 | 12 | 31 | 1 | 17 | 5 | 5 | 3 | 4 | 20 | 13 | 25 | 18 | 0 | 0 | 0 | 0 |

| PROJECT | CAMPING ON PROJECT (%) | | | | STAYING IN AREA (%) | | | | CAMPING ON PROJ. AND STAYING IN AREA (%) | | | | AVG. DURATION OF VISIT CAMPING ON PROJ. (Days) | | | | AVG. DURATION OF VISIT STAYING IN AREA (Days) | | | | AVG. DURATION OF VISIT DAY USE (Hours) | | | |
|---------------------|---------------------------|-----|------|--------|------------------------|-----|------|--------|--|-----|------|--------|---|-----|------|--------|--|-----|------|--------|---|-----|------|--------|
| | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| BLACK BUTTE | 1 | 3 | 4 | 2 | 0 | 0 | 0 | 0 | 1 | 3 | 4 | 2 | 2.9 | 4.2 | 2.0 | 3.3 | 2.0 | 2.0 | 0.0 | 2.0 | 3.8 | 3.8 | 2.7 | 3.7 |
| ENGLEBRIGHT | 0 | 6 | 6 | 3 | 0 | 0 | 0 | 0 | 0 | 6 | 6 | 3 | 3.0 | 4.1 | 3.0 | 3.5 | 0.0 | 0.0 | 0.0 | 0.0 | 4.1 | 5.2 | 3.8 | 4.5 |
| ISABELLA | 52 | 62 | 43 | 53 | 20 | 19 | 24 | 21 | 72 | 81 | 67 | 74 | 4.1 | 5.2 | 5.0 | 4.7 | 4.5 | 5.5 | 6.0 | 5.2 | 4.7 | 4.7 | 4.7 | 4.9 |
| NEW HOGAN | 10 | 29 | 18 | 18 | 1 | 1 | 2 | 1 | 11 | 30 | 20 | 19 | 3.5 | 4.9 | 3.0 | 4.0 | 9.4 | 3.9 | 4.0 | 6.7 | 4.2 | 4.3 | 3.0 | 4.1 |
| PINE FLAT | 3 | 25 | 3 | 10 | 0 | 14 | 3 | 5 | 3 | 39 | 6 | 16 | 2.4 | 6.8 | 2.2 | 3.9 | 2.7 | 5.3 | 2.4 | 3.5 | 4.3 | 5.3 | 3.3 | 4.5 |
| SUCCESS | 3 | 5 | 4 | 4 | 2 | 4 | 0 | 2 | 5 | 9 | 4 | 6 | 3.1 | 3.2 | 8.1 | 4.0 | 4.5 | 3.6 | 0.0 | 4.1 | 3.2 | 3.2 | 3.2 | 3.2 |
| TERMINUS | 2 | 4 | 3 | 3 | 0 | 6 | 3 | 2 | 2 | 10 | 6 | 5 | 2.1 | 2.7 | 3.0 | 2.5 | 3.0 | 4.2 | 2.9 | 3.4 | 3.6 | 3.6 | 3.0 | 3.5 |
| DISTRICT WT AVERAGE | 15 | 25 | 19 | 19 | 5 | 8 | 10 | 7 | 20 | 33 | 29 | 26 | 3.1 | 4.5 | 4.5 | 3.9 | 4.4 | 4.3 | 4.9 | 4.4 | 4.1 | 4.3 | 3.7 | 4.1 |

DISTRICT: SACRAMENTO

YEAR: 1966

| PLAN FORMULATION STUDIES - RECREATION | | | | | | | | | | | | | | RECREATION USE DATA SUMMARY | | | | | | | | | | | | | |
|---------------------------------------|-------------------------|-------|-------|-------|--------------------------|----|------|-------|----------------------------|-----|------|-------|---------------------------------|-----------------------------|------|-------|----------------------------------|----|------|-------|-------------|----|------|-------|--|--|--|
| PROJECT | NO. OF PERSONS SURVEYED | | | | % OF VISITORS ON WEEKEND | | | | NO. OF PERSONS PER VEHICLE | | | | % OF VEHICLES WITH BOAT-TRAILER | | | | % OF VEHICLES WITH HOUSE-TRAILER | | | | FISHING (%) | | | | | | |
| | SUM | | FALL | | SUM | | FALL | | SUM | | FALL | | SUM | | FALL | | SUM | | FALL | | SUM | | FALL | | | | |
| | SP | WT | AVG | TOTAL | SP | WT | AVG | TOTAL | SP | WT | AVG | TOTAL | SP | WT | AVG | TOTAL | SP | WT | AVG | TOTAL | SP | WT | AVG | TOTAL | | | |
| BLACK BUTTE | 1,506 | 692 | 260 | 2,458 | 82 | 44 | 55 | 69 | 2.8 | 3.7 | 2.7 | 3.0 | 7 | 31 | 4 | 13 | 0 | 6 | 1 | 2 | 33 | 22 | 50 | 32 | | | |
| ENGLEBRIGHT | 324 | 1,304 | 335 | 1,963 | 41 | 55 | 37 | 49 | 3.1 | 3.5 | 3.0 | 3.3 | 31 | 25 | 0 | 22 | 0 | 0 | 0 | 0 | 39 | 8 | 1 | 12 | | | |
| ISABELLA | 4,000 | 3,578 | 1,817 | 9,395 | 69 | 53 | 69 | 64 | 2.7 | 3.2 | 2.5 | 2.8 | 20 | 29 | 22 | 24 | 12 | 11 | 9 | 11 | 93 | 89 | 85 | 90 | | | |
| NEW HOGAN | 1,908 | 2,164 | 793 | 4,865 | 70 | 61 | 67 | 66 | 2.7 | 3.6 | 2.9 | 3.1 | 15 | 28 | 12 | 20 | 6 | 2 | 3 | 4 | 65 | 39 | 34 | 50 | | | |
| PINE FLAT | 724 | 1,354 | 937 | 3,015 | 69 | 49 | 75 | 63 | 2.5 | 3.6 | 2.9 | 3.1 | 21 | 30 | 22 | 25 | 1 | 1 | 0 | 1 | 53 | 20 | 45 | 38 | | | |
| SUCCESS | 1,857 | 2,082 | 1,256 | 5,195 | 70 | 51 | 52 | 58 | 2.8 | 3.3 | 2.4 | 2.9 | 11 | 26 | 9 | 16 | 0 | 0 | 0 | 0 | 43 | 28 | 53 | 40 | | | |
| TERMINUS | 2,127 | 1,829 | 1,276 | 5,232 | 61 | 54 | 59 | 58 | 2.7 | 3.2 | 2.5 | 2.8 | 8 | 25 | 18 | 16 | 0 | 0 | 0 | 0 | 37 | 25 | 54 | 38 | | | |
| DISTRICT WT AVERAGE | | | | | 69 | 53 | 62 | 62 | 2.7 | 3.4 | 2.6 | 2.9 | 15 | 28 | 16 | 20 | 5 | 4 | 3 | 4 | 61 | 44 | 57 | 54 | | | |

| PROJECT | PICNICKING (%) | | | | SWIMMING (%) | | | | WATER SKIING (%) | | | | PLEASURE BOATING (%) | | | | SIGHTSEEING (%) | | | | OTHERS (%) | | | |
|---------------------|----------------|----|------|--------|--------------|-----|------|--------|------------------|-----|------|--------|----------------------|-----|------|--------|-----------------|-----|------|--------|------------|-----|------|--------|
| | SUM | | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG |
| | SP | | | | | | | | | | | | | | | | | | | | | | | |
| BLACK BUTTE | 27 | 56 | 28 | 34 | 0 | 51 | 0 | 13 | 0 | 33 | 1 | 8 | 4 | 5 | 2 | 4 | 52 | 9 | 40 | 40 | 0 | 1 | 0 | 0 |
| ENGLEBRIGHT | 30 | 57 | 11 | 44 | 0 | 66 | 0 | 43 | 9 | 42 | 0 | 29 | 11 | 16 | 1 | 13 | 44 | 16 | 88 | 33 | 1 | 0 | 0 | 0 |
| ISABELLA | 21 | 25 | 34 | 25 | 1 | 42 | 0 | 15 | 1 | 13 | 0 | 5 | 0 | 1 | 1 | 1 | 4 | 3 | 6 | 4 | 0 | 0 | 0 | 0 |
| NEW HOGAN | 16 | 34 | 24 | 24 | 0 | 54 | 3 | 21 | 0 | 43 | 3 | 17 | 1 | 6 | 2 | 3 | 24 | 7 | 53 | 22 | 1 | 0 | 2 | 1 |
| PINE FLAT | 26 | 24 | 28 | 26 | 0 | 20 | 1 | 8 | 1 | 51 | 15 | 25 | 4 | 8 | 7 | 7 | 39 | 11 | 30 | 25 | 0 | 2 | 1 | 1 |
| SUCCESS | 21 | 30 | 22 | 25 | 0 | 12 | 0 | 4 | 0 | 25 | 0 | 9 | 4 | 9 | 0 | 5 | 50 | 27 | 45 | 40 | 1 | 0 | 0 | 0 |
| TERMINUS | 18 | 34 | 36 | 28 | 0 | 6 | 1 | 2 | 2 | 30 | 4 | 12 | 4 | 6 | 2 | 4 | 52 | 34 | 30 | 40 | 1 | 1 | 4 | 2 |
| DISTRICT WT AVERAGE | 21 | 33 | 29 | 27 | 0 | 34 | 1 | 13 | 1 | 30 | 3 | 12 | 2 | 6 | 2 | 4 | 30 | 14 | 31 | 25 | 0 | 0 | 1 | 1 |

| PROJECT | CAMPING ON PROJECT (%) | | | | STAYING IN AREA (%) | | | | CAMPING ON PROJ. AND STAYING IN AREA (%) | | | | AVG. DURATION OF VISIT CAMPING ON PROJ. (Days) | | | | AVG. DURATION OF VISIT STAYING IN AREA (Days) | | | | AVG. DURATION OF VISIT DAY USE (Hours) | | | | |
|---------------------|------------------------|-----|------|--------|---------------------|-----|------|--------|--|-----|------|--------|--|-----|------|--------|---|-----|------|--------|--|-----|------|--------|-----|
| | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| BLACK BUTTE | 0 | 13 | 1 | 3 | 2 | 0 | 0 | 1 | 2 | 13 | 1 | 4 | 2.0 | 5.4 | 3.0 | 3.0 | 2.0 | 0.0 | 0.0 | 0.0 | 2.0 | 2.2 | 4.1 | 2.3 | 2.7 |
| ENGLEBRIGHT | 0 | 3 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 2 | 0.0 | 4.6 | 0.0 | 4.6 | 0.0 | 3.0 | 0.0 | 3.0 | 2.8 | 4.6 | 1.2 | 3.7 | |
| ISABELLA | 53 | 58 | 39 | 52 | 14 | 16 | 21 | 16 | 67 | 74 | 60 | 68 | 4.3 | 5.4 | 4.4 | 4.7 | 5.1 | 5.4 | 4.5 | 5.1 | 4.6 | 5.1 | 4.8 | 4.8 | |
| NEW HOGAN | 22 | 36 | 12 | 26 | 0 | 1 | 2 | 1 | 22 | 37 | 14 | 27 | 3.8 | 4.3 | 2.8 | 3.8 | 2.0 | 2.9 | 2.9 | 2.5 | 4.7 | 5.5 | 3.0 | 4.7 | |
| PINE FLAT | 3 | 24 | 8 | 13 | 1 | 28 | 4 | 12 | 4 | 52 | 12 | 25 | 2.1 | 5.1 | 2.3 | 3.3 | 4.0 | 5.0 | 2.1 | 3.8 | 3.6 | 5.8 | 3.8 | 4.5 | |
| SUCCESS | 1 | 3 | 1 | 2 | 0 | 0 | 0 | 0 | 1 | 3 | 1 | 2 | 3.9 | 2.6 | 2.0 | 2.9 | 0.0 | 2.8 | 5.0 | 3.7 | 2.7 | 3.5 | 3.0 | 3.1 | |
| TERMINUS | 0 | 0 | 1 | 0 | 2 | 3 | 2 | 2 | 2 | 3 | 3 | 2 | 0.0 | 0.0 | 2.8 | 2.8 | 11.8 | 2.0 | 6.9 | 7.3 | 2.2 | 3.3 | 3.2 | 2.8 | |
| DISTRICT WT AVERAGE | 21 | 26 | 14 | 22 | 5 | 8 | 7 | 7 | 26 | 34 | 21 | 29 | 3.6 | 4.5 | 3.1 | 3.8 | 5.3 | 3.7 | 4.6 | 4.5 | 3.6 | 4.6 | 3.8 | 3.9 | |

DISTRICT: SACRAMENTO

YEAR: 1967

| PLAN FORMULATION STUDIES - RECREATION | | | | | | | | | | | | RECREATION USE DATA SUMMARY | | | | | | | | | | | | |
|---------------------------------------|-------------------------|-------|-------|-------|--------------------------|------|--------|----|----------------------------|------|--------|-----------------------------|---------------------------------|------|--------|----|----------------------------------|------|--------|----|-------------|------|--------|----|
| PROJECT | NO. OF PERSONS SURVEYED | | | | % OF VISITORS ON WEEKEND | | | | NO. OF PERSONS PER VEHICLE | | | | % OF VEHICLES WITH BOAT-TRAILER | | | | % OF VEHICLES WITH HOUSE-TRAILER | | | | FISHING (%) | | | |
| | SP | SUM | FALL | TOTAL | SP | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | |
| BLACK BUTTE | 1,404 | 800 | 303 | 2,507 | 65 | 55 | 70 | 63 | 3.3 | 3.1 | 2.7 | 3.2 | 20 | 22 | 6 | 19 | 2 | 0 | 1 | 1 | 37 | 21 | 36 | 32 |
| ENGLEBRIGHT | 867 | 828 | 71 | 1,766 | 58 | 58 | 57 | 58 | 3.2 | 3.4 | 2.4 | 3.3 | 18 | 23 | 2 | 19 | 0 | 0 | 0 | 0 | 13 | 24 | 31 | 19 |
| ISABELLA | 1,722 | 1,819 | 416 | 3,957 | 58 | 57 | 64 | 58 | 2.9 | 3.3 | 2.4 | 3.0 | 27 | 17 | 12 | 21 | 9 | 6 | 5 | 7 | 93 | 84 | 66 | 86 |
| NEW HOGAN | 2,084 | 2,141 | 290 | 4,515 | 71 | 55 | 69 | 64 | 3.4 | 3.7 | 3.0 | 3.5 | 32 | 29 | 24 | 30 | 4 | 4 | 5 | 4 | 28 | 31 | 35 | 30 |
| PINE FLAT | 2,182 | 2,494 | 172 | 4,848 | 66 | 60 | 58 | 63 | 3.1 | 3.5 | 2.5 | 3.3 | 13 | 17 | 16 | 15 | 1 | 2 | 1 | 1 | 36 | 25 | 34 | 31 |
| SUCCESS | 3,418 | 2,643 | 1,710 | 7,771 | 63 | 54 | 74 | 62 | 3.1 | 2.9 | 2.6 | 2.9 | 15 | 14 | 18 | 15 | 0 | 0 | 0 | 0 | 38 | 52 | 42 | 44 |
| TERMINUS | 2,714 | 1,675 | 767 | 5,156 | 54 | 57 | 61 | 56 | 3.3 | 3.4 | 2.7 | 3.2 | 6 | 12 | 13 | 9 | 0 | 1 | 0 | 0 | 28 | 26 | 55 | 32 |
| DISTRICT WT AVERAGE | | | | | 62 | 56 | 68 | 61 | 3.2 | 3.3 | 2.6 | 3.1 | 18 | 18 | 15 | 17 | 2 | 2 | 1 | 2 | 40 | 41 | 46 | 41 |

| PROJECT | PICKNICKING (%) | | | | SWIMMING (%) | | | | WATER SKIING (%) | | | | PLEASURE BOATING (%) | | | | SIGHTSEEING (%) | | | | OTHERS (%) | | | |
|---------------------|-----------------|------|----|-----|--------------|------|----|-----|------------------|------|----|-----|----------------------|------|----|-----|-----------------|------|----|-----|------------|------|----|-----|
| | SP | FALL | WT | AVG | SP | FALL | WT | AVG | SP | FALL | WT | AVG | SP | FALL | WT | AVG | SP | FALL | WT | AVG | SP | FALL | WT | AVG |
| BLACK BUTTE | 56 | 37 | 23 | 45 | 29 | 42 | 0 | 29 | 22 | 25 | 0 | 20 | 3 | 5 | 3 | 4 | 14 | 23 | 37 | 20 | 1 | 0 | 4 | 1 |
| ENGLEBRIGHT | 59 | 65 | 40 | 61 | 56 | 68 | 0 | 59 | 28 | 53 | 0 | 38 | 34 | 20 | 12 | 27 | 23 | 20 | 14 | 21 | 0 | 0 | 14 | 1 |
| ISABELLA | 33 | 14 | 12 | 22 | 11 | 44 | 0 | 24 | 9 | 11 | 0 | 9 | 0 | 2 | 1 | 1 | 3 | 3 | 24 | 6 | 0 | 0 | 4 | 0 |
| NEW HOGAN | 46 | 33 | 31 | 39 | 30 | 31 | 13 | 29 | 40 | 43 | 15 | 40 | 2 | 3 | 2 | 2 | 15 | 15 | 26 | 16 | 0 | 0 | 4 | 0 |
| PINE FLAT | 22 | 29 | 2 | 24 | 5 | 5 | 0 | 5 | 19 | 33 | 0 | 25 | 6 | 4 | 9 | 5 | 23 | 21 | 55 | 24 | 1 | 0 | 3 | 1 |
| SUCCESS | 13 | 19 | 21 | 17 | 16 | 7 | 0 | 9 | 15 | 8 | 0 | 9 | 5 | 2 | 3 | 3 | 26 | 29 | 53 | 34 | 0 | 1 | 0 | 0 |
| TERMINUS | 32 | 37 | 43 | 36 | 38 | 38 | 15 | 34 | 10 | 9 | 0 | 8 | 2 | 1 | 2 | 2 | 21 | 20 | 20 | 20 | 0 | 0 | 1 | 0 |
| DISTRICT WT AVERAGE | 32 | 29 | 25 | 30 | 23 | 26 | 4 | 22 | 19 | 23 | 1 | 18 | 5 | 4 | 3 | 4 | 19 | 19 | 39 | 22 | 0 | 0 | 2 | 0 |

| PROJECT | CAMPING ON PROJECT (%) | | | | STAYING IN AREA (%) | | | | CAMPING ON PROJ. AND STAYING IN AREA (%) | | | | AVG. DURATION OF VISIT CAMPING ON PROJ (Days) | | | | AVG. DURATION OF VISIT STAYING IN AREA (Days) | | | | AVG. DURATION OF VISIT DAY USE (Hours) | | | |
|---------------------|------------------------|------|----|-----|---------------------|------|----|-----|--|------|----|-----|---|------|-----|-----|---|------|------|-----|--|------|-----|-----|
| | SP | FALL | WT | AVG | SP | FALL | WT | AVG | SP | FALL | WT | AVG | SP | FALL | WT | AVG | SP | FALL | WT | AVG | SP | FALL | WT | AVG |
| BLACK BUTTE | 6 | 7 | 5 | 6 | 0 | 0 | 0 | 0 | 6 | 7 | 5 | 6 | 4.1 | 3.7 | 1.6 | 3.6 | 0.0 | 0.0 | 0.0 | 0.0 | 3.6 | 3.6 | 2.0 | 3.4 |
| ENGLEBRIGHT | 2 | 20 | 0 | 10 | 0 | 0 | 0 | 0 | 2 | 20 | 0 | 10 | 5.0 | 4.3 | 0.0 | 4.4 | 0.0 | 0.0 | 0.0 | 0.0 | 4.4 | 3.9 | 3.0 | 4.1 |
| ISABELLA | 38 | 50 | 15 | 40 | 25 | 21 | 25 | 23 | 63 | 71 | 40 | 63 | 3.3 | 4.5 | 3.0 | 3.8 | 4.4 | 5.2 | 3.5 | 4.6 | 4.5 | 4.4 | 4.2 | 4.4 |
| NEW HOGAN | 24 | 38 | 33 | 31 | 2 | 1 | 4 | 2 | 26 | 39 | 37 | 33 | 2.8 | 4.2 | 2.2 | 3.4 | 6.0 | 6.2 | 10.0 | 6.4 | 5.6 | 4.8 | 3.6 | 5.1 |
| PINE FLAT | 16 | 14 | 0 | 14 | 12 | 27 | 5 | 19 | 28 | 41 | 5 | 33 | 5.0 | 4.2 | 0.0 | 4.4 | 3.0 | 4.9 | 2.8 | 3.9 | 4.4 | 5.5 | 3.0 | 4.9 |
| SUCCESS | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 2.4 | 2.0 | 2.0 | 2.2 | 3.6 | 0.0 | 0.0 | 1.5 | 3.5 | 3.6 | 2.5 | 3.3 |
| TERMINUS | 3 | 9 | 6 | 5 | 4 | 4 | 0 | 3 | 7 | 13 | 6 | 9 | 2.0 | 2.7 | 2.8 | 2.4 | 6.7 | 5.1 | 2.0 | 5.3 | 3.0 | 3.0 | 3.5 | 3.1 |
| DISTRICT WT AVERAGE | 13 | 19 | 6 | 14 | 6 | 9 | 3 | 7 | 19 | 28 | 9 | 21 | 3.2 | 3.5 | 2.1 | 3.2 | 3.9 | 3.4 | 1.6 | 3.3 | 4.0 | 4.2 | 3.0 | 3.9 |

DISTRICT: SACRAMENTO

YEAR: 1968

RECREATION USE DATA SUMMARY

PLAN FORMULATION STUDIES - RECREATION

| PROJECT | NO. OF PERSONS SURVEYED | | | | % OF VISITORS ON WEEKEND | | | | NO. OF PERSONS PER VEHICLE | | | | % OF VEHICLES WITH BOAT-TRAILER | | | | % OF VEHICLES WITH HOUSE-TRAILER | | | | FISHING (%) | | | | | |
|------------|-------------------------|-----|------|-------|--------------------------|-----|------|--------|----------------------------|-----|------|--------|---------------------------------|-----|------|--------|----------------------------------|-----|------|--------|-------------|-----|------|--------|----|----|
| | SP | SUM | FALL | TOTAL | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | | |
| CLARK HILL | 4,934 | | 882 | 5,816 | 83 | | 80 | 82 | 3.3 | | | 2.7 | 3.2 | 17 | | 13 | 16 | 1 | | 1 | | 1 | | 20 | 23 | |
| HARTWELL | 1,439 | 851 | 326 | 2,616 | 67 | 39 | 56 | 57 | 2.5 | 3.1 | 2.1 | 2.6 | 40 | 20 | 23 | 32 | 0 | 0 | 1 | 0 | 1 | 0 | 71 | 25 | 40 | 53 |
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| PROJECT | PICNICKING (%) | | | SWIMMING (%) | | | WATER SKIING (%) | | | PLEASURE BOATING (%) | | | SIGHTSEEING (%) | | | OTHERS (%) | | |
|---------------------|----------------|-----|-------------|--------------|-----|-------------|------------------|-----|-------------|----------------------|-----|-------------|-----------------|-----|-------------|------------|-----|-------------|
| | SP | SUM | FALL WT AVG | SP | SUM | FALL WT AVG | SP | SUM | FALL WT AVG | SP | SUM | FALL WT AVG | SP | SUM | FALL WT AVG | SP | SUM | FALL WT AVG |
| CLARK HILL | 26 | | 21 25 | | 11 | | 0 9 | 4 | 0 3 | | 6 | | 2 5 | 30 | 52 34 | 5 | | 1 4 |
| HARTWELL | 17 | 19 | 3 15 | 2 | 34 | 0 11 | 1 | 14 | 0 5 | 8 | 25 | 15 14 | 23 | 24 | 47 27 | 0 | 1 | 2 1 |
| | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | |
| DISTRICT WT AVERAGE | 24 | 19 | 16 22 | 9 | 34 | 0 10 | 3 | 14 | 0 4 | 6 | 25 | 5 8 | 28 | 24 | 51 31 | 4 | 1 | 1 3 |

[illegible]

DISTRICT: SAVANNAH

YEAR: 1966

| PLAN FORMULATION STUDIES - RECREATION | | | | | | | | | | | | RECREATION USE DATA SUMMARY | | | | | | | | | | | | |
|---------------------------------------|-------------------------|-----|------|-------|--------------------------|-----|------|--------|----------------------------|-----|------|-----------------------------|---------------------------------|-----|------|--------|----------------------------------|-----|------|--------|-------------|-----|------|--------|
| PROJECT | NO. OF PERSONS SURVEYED | | | | % OF VISITORS ON WEEKEND | | | | NO. OF PERSONS PER VEHICLE | | | | % OF VEHICLES WITH BOAT-TRAILER | | | | % OF VEHICLES WITH HOUSE-TRAILER | | | | FISHING (%) | | | |
| | SP | SUM | FALL | TOTAL | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG |
| CLARK HILL | 5,024 | | 854 | 5,878 | 78 | | 80 | 78 | 3.1 | | 2.8 | 3.1 | 19 | | 16 | 19 | 0 | | 1 | 0 | 19 | | 17 | 19 |
| HARTWELL | 1,206 | | 307 | 1,513 | 65 | | 62 | 64 | 2.5 | | 2.1 | 2.4 | 34 | | 13 | 30 | 0 | | 0 | 0 | 48 | | 24 | 43 |
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| DISTRICT WT AVERAGE | | | | | 75 | | 75 | 75 | 3.0 | | 2.6 | 2.9 | 22 | | 15 | 21 | 0 | | 1 | 0 | 26 | | 19 | 25 |

| PROJECT | PICKICKING (%) | | | | SWIMMING (%) | | | | WATER SKIING (%) | | | | PLEASURE BOATING (%) | | | | SIGHTSEEING (%) | | | | OTHERS (%) | | | |
|---------------------|----------------|-----|------|--------|--------------|-----|------|--------|------------------|-----|------|--------|----------------------|-----|------|--------|-----------------|-----|------|--------|------------|-----|------|--------|
| | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG |
| CLARK HILL | 31 | | 20 | 29 | 13 | | 0 | 11 | 5 | | 0 | 4 | 6 | | 3 | 6 | 33 | | 52 | 36 | 4 | | 11 | 5 |
| HARTWELL | 16 | | 6 | 14 | 4 | | 0 | 3 | 1 | | 0 | 1 | 14 | | 3 | 12 | 35 | | 72 | 43 | 0 | | 0 | 0 |
| | | | | | | | | | | | | | | | | | | | | | | | | |
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| DISTRICT WT AVERAGE | 28 | | 16 | 26 | 11 | | 0 | 9 | 4 | | 0 | 3 | 8 | | 3 | 7 | 33 | | 58 | 37 | 3 | | 8 | 4 |

| PROJECT | CAMPING ON PROJECT (%) | | | | STAYING IN AREA (%) | | | | CAMPING ON PROJ. AND STAYING IN AREA (%) | | | | AVG. DURATION OF VISIT CAMPING ON PROJ. (Days) | | | | AVG. DURATION OF VISIT STAYING IN AREA (Days) | | | | AVG. DURATION OF VISIT DAY USE (Hours) | | | |
|---------------------|------------------------|-----|------|--------|---------------------|-----|------|--------|--|-----|------|--------|--|-----|------|--------|---|-----|------|--------|--|-----|------|--------|
| | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG |
| CLARK HILL | 5 | | 3 | 5 | 4 | | 2 | 4 | 9 | | 5 | 8 | 3.5 | | 4.4 | 3.6 | 3.0 | | 3.4 | 3.1 | 3.1 | | 2.5 | 3.0 |
| HARTWELL | 7 | | 1 | 6 | 1 | | 1 | 1 | 8 | | 2 | 7 | 2.6 | | 2.0 | 2.5 | 2.0 | | 4.0 | 2.4 | 3.7 | | 2.1 | 3.4 |
| | | | | | | | | | | | | | | | | | | | | | | | | |
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| DISTRICT WT AVERAGE | 5 | | 2 | 4 | 3 | | 2 | 3 | 9 | | 4 | 8 | 3.3 | | 3.7 | 3.4 | 2.8 | | 3.6 | 2.9 | 3.2 | | 2.4 | 3.1 |

DISTRICT: SAVANNAH

YEAR: 1967

| PLAN FORMULATION STUDIES - RECREATION | | | | | | | | | | | | RECREATION USE DATA SUMMARY | | | | | | | | | | | | |
|---------------------------------------|-------------------------|-----|-------|-------|--------------------------|-----|------|--------|----------------------------|-----|------|-----------------------------|---------------------------------|-----|------|--------|----------------------------------|-----|------|--------|-------------|-----|------|--------|
| PROJECT | NO. OF PERSONS SURVEYED | | | | % OF VISITORS ON WEEKEND | | | | NO. OF PERSONS PER VEHICLE | | | | % OF VEHICLES WITH BOAT-TRAILER | | | | % OF VEHICLES WITH HOUSE-TRAILER | | | | FISHING (%) | | | |
| | SP | SUM | FALL | TOTAL | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG |
| CLARK HILL | 6,678 | | 1,175 | 7,853 | 79 | | 66 | 77 | 3.2 | | 2.6 | 3.1 | 18 | | 16 | 18 | 1 | | 5 | 2 | 21 | | 24 | 22 |
| HARTWELL | 1,090 | | 254 | 1,344 | 69 | | 67 | 69 | 2.5 | | 2.2 | 2.4 | 45 | | 35 | 43 | 3 | | 0 | 2 | 51 | | 53 | 51 |
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| PROJECT | PICKICKING (%) | | | | SWIMMING (%) | | | | WATER SKING (%) | | | | PLEASURE BOATING (%) | | | | SIGHTSEEING (%) | | | | OTHERS (%) | | | |
|---------------------|----------------|-----|------|--------|--------------|-----|------|--------|-----------------|-----|------|--------|----------------------|-----|------|--------|-----------------|-----|------|--------|------------|-----|------|--------|
| | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG |
| CLARK HILL | 34 | 13 | 30 | 11 | 0 | 9 | 3 | 0 | 2 | 4 | 1 | 3 | 31 | 46 | 34 | 4 | 8 | 5 | | | | | | |
| HARTWELL | 22 | 23 | 22 | 1 | 0 | 1 | 1 | 0 | 1 | 9 | 14 | 10 | 28 | 39 | 30 | 1 | 0 | 1 | | | | | | |
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| DISTRICT WT AVERAGE | 32 | 15 | 29 | 9 | 0 | 7 | 3 | 0 | 2 | 5 | 4 | 5 | 30 | 44 | 33 | 3 | 6 | 4 | | | | | | |

| PROJECT | CAMPING ON PROJECT (%) | | | | STAYING IN AREA (%) | | | | CAMPING ON PROJ. AND STAYING IN AREA (%) | | | | AVG. DURATION OF VISIT CAMPING ON PROJ. (Days) | | | | AVG. DURATION OF VISIT STAYING IN AREA (Days) | | | | AVG. DURATION OF VISIT DAY USE (Hours) | | | |
|---------------------|------------------------|-----|------|--------|---------------------|-----|------|--------|--|-----|------|--------|--|-----|------|--------|---|-----|------|--------|--|-----|------|--------|
| | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG |
| CLARK HILL | 8 | 13 | 9 | 0 | 0 | 0 | 8 | 13 | 9 | 3.6 | 3.6 | 3.6 | 5.9 | 2.0 | 5.2 | 3.2 | 2.9 | 3.1 | | | | | | |
| HARTWELL | 14 | 2 | 11 | 0 | 0 | 0 | 14 | 2 | 11 | 2.2 | 2.3 | 2.2 | 0.0 | 0.0 | 0.0 | 4.4 | 3.3 | 4.2 | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
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| DISTRICT WT AVERAGE | 9 | 11 | 9 | 0 | 0 | 0 | 9 | 11 | 9 | 3.3 | 3.3 | 3.3 | 5.9 | 2.0 | 5.2 | 3.4 | 3.0 | 3.3 | | | | | | |

DISTRICT: SAVANNAH

YEAR: 1968

| PLAN FORMULATION STUDIES - RECREATION | | | | | | | | | | | | | | RECREATION USE DATA SUMMARY | | | | | | | | | | | | | |
|---------------------------------------|-------------------------|-------|-------|--------|--------------------------|-----|------|--------|----------------------------|-----|------|--------|---------------------------------|-----------------------------|------|--------|----------------------------------|-----|------|--------|-------------|-----|------|--------|--|--|--|
| PROJECT | NO. OF PERSONS SURVEYED | | | | % OF VISITORS ON WEEKEND | | | | NO. OF PERSONS PER VEHICLE | | | | % OF VEHICLES WITH BOAT-TRAILER | | | | % OF VEHICLES WITH HOUSE-TRAILER | | | | FISHING (%) | | | | | | |
| | SP | SUM | FALL | TOTAL | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | | | |
| CANTON | 2,810 | 4,346 | 2,098 | 9,254 | 66 | 64 | 52 | 61 | 3.3 | 3.3 | 2.9 | 3.2 | 5 | 13 | 8 | 10 | 1 | 1 | 2 | 1 | 43 | 32 | 52 | 40 | | | |
| DENISON | 1,064 | 2,058 | 526 | 3,648 | 70 | 57 | 57 | 61 | 2.7 | 3.5 | 2.9 | 3.1 | 8 | 20 | 25 | 17 | 0 | 1 | 0 | 1 | 71 | 48 | 76 | 60 | | | |
| EUFULA | 1,394 | 2,896 | 666 | 4,956 | 67 | 56 | 57 | 59 | 2.8 | 3.5 | 2.7 | 3.2 | 7 | 18 | 18 | 15 | 0 | 2 | 0 | 1 | 34 | 36 | 45 | 37 | | | |
| FALL RIVER | 630 | 488 | 398 | 1,516 | 73 | 67 | 63 | 69 | 2.8 | 3.3 | 2.9 | 3.0 | 3 | 18 | 5 | 8 | 1 | 2 | 0 | 1 | 46 | 37 | 40 | 42 | | | |
| FORT GIBSON | 466 | 1,193 | 286 | 1,945 | 57 | 66 | 52 | 60 | 2.2 | 3.9 | 2.2 | 3.0 | 9 | 13 | 19 | 13 | 0 | 2 | 1 | 1 | 54 | 27 | 70 | 45 | | | |
| FORT SUPPLY | 1,129 | 2,065 | 638 | 3,832 | 70 | 55 | 47 | 59 | 2.7 | 3.4 | 2.7 | 3.0 | 1 | 7 | 0 | 4 | 0 | 1 | 0 | 0 | 16 | 23 | 20 | 20 | | | |
| GREAT SALT PLAINS | 1,490 | 1,537 | 677 | 3,704 | 86 | 82 | 62 | 79 | 3.6 | 3.5 | 2.9 | 3.4 | 0 | 7 | 1 | 3 | 0 | 1 | 0 | 0 | 19 | 9 | 41 | 20 | | | |
| HEYBURN | 387 | 1,564 | 264 | 2,215 | 40 | 53 | 60 | 51 | 2.9 | 4.0 | 3.1 | 3.6 | 2 | 9 | 3 | 7 | 0 | 4 | 0 | 3 | 35 | 7 | 42 | 18 | | | |
| HULAH | 371 | 652 | 206 | 1,229 | 76 | 75 | 69 | 74 | 2.5 | 3.2 | 2.6 | 2.8 | 6 | 17 | 6 | 11 | 1 | 2 | 0 | 1 | 82 | 30 | 36 | 49 | | | |
| KEYSTONE | 2,206 | 3,419 | 1,204 | 6,829 | 64 | 78 | 69 | 71 | 2.8 | 3.7 | 2.9 | 3.2 | 6 | 19 | 13 | 13 | 0 | 0 | 1 | 0 | 47 | 9 | 27 | 26 | | | |
| OLOGAH | 4,139 | 4,661 | 1,678 | 10,478 | 63 | 62 | 59 | 62 | 4.1 | 4.3 | 3.9 | 4.2 | 1 | 5 | 4 | 3 | 0 | 1 | 0 | 0 | 46 | 33 | 34 | 38 | | | |
| TENKILLER | 609 | 1,606 | 364 | 2,579 | 46 | 55 | 62 | 54 | 3.0 | 3.8 | 2.8 | 3.4 | 6 | 27 | 24 | 21 | 0 | 1 | 1 | 1 | 60 | 48 | 73 | 55 | | | |
| TORONTO | 510 | 771 | 299 | 1,580 | 81 | 71 | 69 | 74 | 3.6 | 3.7 | 3.1 | 3.5 | 5 | 23 | 8 | 14 | 1 | 5 | 1 | 3 | 31 | 25 | 27 | 27 | | | |
| WISTER | 602 | 1,096 | 405 | 2,103 | 37 | 49 | 53 | 46 | 2.5 | 2.9 | 2.2 | 2.6 | 5 | 2 | 0 | 2 | 0 | 2 | 2 | 1 | 45 | 32 | 38 | 37 | | | |
| DISTRICT WT AVERAGE | | | | | 65 | 62 | 58 | 62 | 3.2 | 3.6 | 2.9 | 3.2 | 4 | 13 | 9 | 9 | 0 | 1 | 1 | 1 | 43 | 28 | 43 | 36 | | | |

| PROJECT | PICNICKING (%) | | | | SWIMMING (%) | | | | WATER SKIING (%) | | | | PLEASURE BOATING (%) | | | | SIGHTSEEING (%) | | | | OTHERS (%) | | | |
|---------------------|----------------|-----|------|--------|--------------|-----|------|--------|------------------|-----|------|--------|----------------------|-----|------|--------|-----------------|-----|------|--------|------------|-----|------|--------|
| | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG |
| CANTON | 9 | 20 | 4 | 13 | 1 | 24 | 0 | 11 | 0 | 10 | 0 | 5 | 1 | 1 | 1 | 1 | 50 | 30 | 42 | 39 | 0 | 0 | 0 | 0 |
| DENISON | 5 | 6 | 1 | 5 | 9 | 52 | 1 | 29 | 6 | 10 | 0 | 7 | 7 | 4 | 5 | 5 | 11 | 5 | 10 | 13 | 2 | 2 | 9 | 3 |
| EUFALA | 10 | 10 | 17 | 11 | 0 | 55 | 0 | 31 | 0 | 9 | 0 | 5 | 4 | 5 | 1 | 4 | 54 | 18 | 45 | 33 | 0 | 0 | 2 | 0 |
| FALL RIVER | 8 | 13 | 5 | 9 | 0 | 11 | 0 | 3 | 0 | 20 | 0 | 6 | 1 | 0 | 1 | 1 | 46 | 44 | 55 | 48 | 1 | 0 | 0 | 0 |
| FORT GIBSON | 7 | 30 | 11 | 18 | 0 | 55 | 0 | 26 | 0 | 9 | 0 | 4 | 2 | 4 | 0 | 3 | 31 | 9 | 20 | 19 | 4 | 2 | 4 | 3 |
| FORT SUPPLY | 13 | 23 | 8 | 17 | 0 | 32 | 0 | 15 | 1 | 10 | 0 | 5 | 4 | 2 | 0 | 2 | 73 | 34 | 73 | 55 | 0 | 0 | 1 | 0 |
| GREAT SALT PLAINS | 17 | 21 | 9 | 17 | 33 | 37 | 0 | 27 | 1 | 3 | 0 | 2 | 1 | 6 | 0 | 4 | 38 | 35 | 51 | 39 | 0 | 0 | 1 | 0 |
| HEYBURN | 5 | 16 | 23 | 15 | 0 | 62 | 0 | 40 | 0 | 5 | 0 | 3 | 4 | 2 | 5 | 3 | 56 | 6 | 21 | 22 | 0 | 0 | 0 | 0 |
| HULAH | 8 | 15 | 11 | 12 | 0 | 57 | 0 | 27 | 0 | 24 | 0 | 11 | 1 | 3 | 0 | 2 | 11 | 17 | 27 | 17 | 0 | 3 | 15 | 4 |
| KEYSTONE | 7 | 18 | 14 | 13 | 0 | 28 | 0 | 13 | 0 | 9 | 1 | 4 | 5 | 12 | 3 | 8 | 40 | 16 | 54 | 32 | 4 | 2 | 0 | 2 |
| OLOGAH | 13 | 24 | 19 | 19 | 0 | 13 | 0 | 6 | 0 | 3 | 1 | 1 | 0 | 0 | 0 | 0 | 44 | 38 | 51 | 43 | 0 | 0 | 0 | 0 |
| TENKILLER | 33 | 24 | 6 | 23 | 2 | 69 | 4 | 40 | 1 | 31 | 0 | 18 | 2 | 0 | 0 | 1 | 22 | 11 | 22 | 16 | 1 | 0 | 5 | 1 |
| TORONTO | 6 | 18 | 6 | 12 | 0 | 30 | 0 | 14 | 0 | 14 | 0 | 7 | 5 | 12 | 6 | 9 | 55 | 29 | 62 | 44 | 0 | 0 | 0 | 0 |
| WISTER | 1 | 13 | 6 | 8 | 0 | 17 | 0 | 8 | 0 | 4 | 0 | 2 | 0 | 0 | 1 | 0 | 50 | 34 | 55 | 44 | 0 | 0 | 0 | 0 |
| DISTRICT WT AVERAGE | 10 | 18 | 10 | 14 | 3 | 36 | 0 | 18 | 1 | 10 | 0 | 5 | 2 | 4 | 1 | 3 | 43 | 24 | 45 | 35 | 1 | 1 | 1 | 1 |

DISTRICT: TULSA

YEAR: 1966

| PLAN FORMULATION STUDIES - RECREATION | | | | | | | | | | | | | | RECREATION USE DATA SUMMARY | | | | | | | | | | | |
|---------------------------------------|------------------------|-----|------|--------|---------------------|-----|------|--------|--|-----|------|--------|--|---|-----|------|--------|---|------|------|--------|--|-----|------|--------|
| PROJECT | CAMPING ON PROJECT (%) | | | | STAYING IN AREA (%) | | | | CAMPING ON PROJ. AND STAYING IN AREA (%) | | | | | AVG. DURATION OF VISIT CAMPING ON PROJ (Days) | | | | AVG. DURATION OF VISIT STAYING IN AREA (Days) | | | | AVG. DURATION OF VISIT DAY USE (Hours) | | | |
| | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG |
| CANTON | 5 | 7 | 3 | 5 | 4 | 2 | 2 | 3 | 9 | 9 | 5 | 8 | | 3.6 | 3.6 | 4.1 | 3.7 | 3.1 | 3.3 | 3.3 | 3.2 | 3.8 | 4.1 | 3.6 | 3.9 |
| DENISON | 6 | 18 | 3 | 12 | 29 | 46 | 41 | 39 | 35 | 64 | 44 | 51 | | 2.6 | 4.6 | 5.4 | 4.0 | 3.2 | 4.8 | 3.3 | 4.0 | 5.8 | 4.5 | 4.5 | 4.9 |
| EUFAULA | 8 | 33 | 10 | 22 | 4 | 7 | 17 | 8 | 12 | 40 | 27 | 30 | | 3.8 | 3.5 | 2.4 | 3.4 | 3.5 | 4.8 | 4.2 | 4.3 | 2.4 | 3.0 | 2.4 | 2.7 |
| FALL RIVER | 9 | 7 | 0 | 6 | 6 | 7 | 0 | 5 | 15 | 14 | 0 | 11 | | 2.2 | 2.1 | 2.0 | 2.1 | 2.1 | 2.0 | 2.0 | 2.0 | 4.1 | 4.2 | 3.0 | 3.8 |
| FORT GIBSON | 3 | 9 | 2 | 6 | 0 | 14 | 3 | 7 | 3 | 23 | 5 | 13 | | 3.9 | 2.2 | 2.0 | 2.7 | 4.0 | 3.3 | 2.0 | 6.6 | 2.9 | 3.9 | 4.2 | 3.6 |
| FORT SUPPLY | 0 | 4 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 4 | 1 | 2 | | 2.0 | 4.5 | 3.0 | 3.4 | 0.0 | 2.0 | 0.0 | 2.0 | 2.2 | 3.1 | 1.9 | 2.6 |
| GREAT SALT PLAINS | 4 | 2 | 1 | 3 | 0 | 0 | 0 | 0 | 4 | 2 | 1 | 3 | | 2.3 | 3.0 | 5.0 | 3.1 | 2.0 | 12.0 | 0.0 | 7.1 | 2.5 | 3.4 | 2.8 | 2.9 |
| HEYBURN | 0 | 4 | 0 | 3 | 0 | 8 | 0 | 5 | 0 | 12 | 0 | 8 | | 2.0 | 3.0 | 0.0 | 2.8 | 0.0 | 2.0 | 0.0 | 2.0 | 2.3 | 4.0 | 2.7 | 3.4 |
| HULAH | 10 | 27 | 14 | 19 | 4 | 6 | 8 | 5 | 14 | 33 | 22 | 24 | | 6.5 | 2.8 | 2.0 | 3.9 | 2.9 | 2.1 | 2.1 | 2.4 | 5.7 | 3.1 | 3.6 | 4.1 |
| KEYSTONE | 1 | 19 | 1 | 9 | 0 | 0 | 0 | 0 | 1 | 19 | 1 | 9 | | 4.3 | 3.6 | 3.0 | 3.7 | 0.0 | 3.5 | 0.0 | 3.5 | 2.3 | 3.4 | 2.0 | 2.7 |
| OOLOGAH | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | | 2.0 | 3.2 | 2.0 | 2.5 | 0.0 | 0.0 | 0.0 | 0.0 | 3.7 | 2.8 | 2.5 | 3.1 |
| TENKILLER | 5 | 40 | 14 | 26 | 28 | 30 | 20 | 28 | 33 | 70 | 34 | 54 | | 7.8 | 5.0 | 3.1 | 5.4 | 3.3 | 6.5 | 3.5 | 5.2 | 4.0 | 4.2 | 3.6 | 4.0 |
| TORONTO | 10 | 16 | 7 | 12 | 0 | 11 | 0 | 5 | 10 | 27 | 7 | 17 | | 2.3 | 2.9 | 2.0 | 2.5 | 0.0 | 2.0 | 0.0 | 2.0 | 3.2 | 4.6 | 3.0 | 3.8 |
| WISTER | 5 | 16 | 11 | 11 | 2 | 4 | 2 | 3 | 7 | 20 | 13 | 14 | | 8.9 | 2.4 | 3.3 | 4.7 | 2.1 | 5.2 | 2.0 | 3.5 | 2.6 | 2.8 | 2.6 | 2.7 |
| DISTRICT WT AVERAGE | 4 | 14 | 4 | 8 | 5 | 8 | 5 | 6 | 8 | 22 | 9 | 14 | | 3.5 | 3.5 | 3.2 | 3.4 | 3.6 | 4.2 | 3.0 | 3.7 | 3.3 | 3.6 | 3.0 | 3.4 |

DISTRICT: TULSA

YEAR: 1966

| PLAN FORMULATION STUDIES - RECREATION | | | | | | | | | | RECREATION USE DATA SUMMARY | | | | | | | | | | | | | | |
|---------------------------------------|-------------------------|-------|-------|-------|--------------------------|-----|------|--------|----------------------------|-----------------------------|------|--------|---------------------------------|-----|------|--------|----------------------------------|-----|------|--------|-------------|-----|------|--------|
| PROJECT | NO. OF PERSONS SURVEYED | | | | % OF VISITORS ON WEEKEND | | | | NO. OF PERSONS PER VEHICLE | | | | % OF VEHICLES WITH BOAT-TRAILER | | | | % OF VEHICLES WITH HOUSE-TRAILER | | | | FISHING (%) | | | |
| | SP | SUM | FALL | TOTAL | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG |
| CANTON | 3,325 | 3,783 | 1,260 | 8,368 | 79 | 63 | 66 | 70 | 3.1 | 3.1 | 2.6 | 3.0 | 7 | 11 | 10 | 9 | 1 | 44 | 32 | 37 | 38 | | | |
| DENISON | 1,017 | 1,859 | 553 | 3,429 | 66 | 64 | 63 | 64 | 3.0 | 3.4 | 2.7 | 3.1 | 20 | 21 | 21 | 21 | 0 | 68 | 42 | 51 | 52 | | | |
| EUFULA | 1,522 | 3,525 | 562 | 5,609 | 72 | 66 | 53 | 66 | 2.9 | 3.6 | 2.4 | 3.2 | 21 | 16 | 14 | 17 | 1 | 41 | 33 | 42 | 37 | | | |
| FALL RIVER | 474 | 1,178 | 226 | 1,878 | 72 | 83 | 63 | 77 | 3.1 | 3.5 | 2.5 | 3.2 | 8 | 17 | 5 | 13 | 7 | 52 | 37 | 50 | 43 | | | |
| FORT GIBSON | 965 | 1,215 | 249 | 2,469 | 85 | 59 | 67 | 72 | 2.7 | 3.4 | 2.3 | 2.9 | 17 | 13 | 8 | 14 | 1 | 68 | 34 | 58 | 52 | | | |
| FORT SUPPLY | 1,158 | 2,014 | 539 | 3,711 | 64 | 70 | 67 | 67 | 2.8 | 3.3 | 2.7 | 3.0 | 2 | 13 | 2 | 8 | 0 | 22 | 20 | 19 | 21 | | | |
| GREAT SALT PLAINS | 758 | 1,362 | 560 | 2,680 | 88 | 68 | 80 | 77 | 3.1 | 3.2 | 2.8 | 3.1 | 3 | 7 | 0 | 4 | 0 | 33 | 23 | 32 | 28 | | | |
| HEYBURN | 782 | 1,450 | 284 | 2,516 | 62 | 63 | 55 | 61 | 3.1 | 3.8 | 2.5 | 3.4 | 6 | 9 | 2 | 7 | 0 | 29 | 7 | 18 | 16 | | | |
| HULAH | 345 | 452 | 275 | 1,072 | 84 | 55 | 43 | 62 | 2.6 | 3.1 | 2.8 | 2.8 | 4 | 12 | 2 | 7 | 1 | 59 | 37 | 42 | 46 | | | |
| KEYSTONE | 2,088 | 2,096 | 702 | 4,886 | 81 | 52 | 72 | 68 | 3.0 | 3.3 | 2.5 | 3.0 | 11 | 12 | 24 | 14 | 1 | 32 | 16 | 23 | 24 | | | |
| COLOGAH | 3,904 | 3,955 | 1,746 | 9,605 | 66 | 57 | 57 | 61 | 4.1 | 3.9 | 3.8 | 4.0 | 7 | 3 | 6 | 5 | 0 | 45 | 49 | 42 | 46 | | | |
| TENKILLER | 990 | 1,476 | 486 | 2,952 | 76 | 67 | 64 | 69 | 3.0 | 3.3 | 2.5 | 3.0 | 13 | 22 | 8 | 16 | 1 | 39 | 38 | 37 | 38 | | | |
| TORONTO | 468 | 873 | 291 | 1,632 | 77 | 65 | 68 | 69 | 4.0 | 3.9 | 3.5 | 3.8 | 13 | 23 | 6 | 17 | 5 | 45 | 33 | 36 | 37 | | | |
| WISTER | 337 | 637 | 252 | 1,226 | 60 | 64 | 46 | 58 | 2.5 | 3.0 | 2.1 | 2.6 | 12 | 6 | 3 | 7 | 1 | 55 | 16 | 25 | 29 | | | |
| DISTRICT WT AVERAGE | | | | | 74 | 63 | 63 | 67 | 3.2 | 3.4 | 2.8 | 3.2 | 10 | 13 | 9 | 11 | 1 | 43 | 31 | 36 | 37 | | | |

| PROJECT | PICNICKING (%) | | | | SWIMMING (%) | | | | WATER SKIING (%) | | | | PLEASURE BOATING (%) | | | | SIGHTSEEING (%) | | | | OTHERS (%) | | | |
|---------------------|----------------|-----|------|--------|--------------|-----|------|--------|------------------|-----|------|--------|----------------------|-----|------|--------|-----------------|-----|------|--------|------------|-----|------|--------|
| | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG |
| CANTON | 18 | 13 | 12 | 15 | 5 | 14 | 0 | 8 | 1 | 6 | 0 | 3 | 2 | 2 | 4 | 2 | 38 | 33 | 48 | 38 | 0 | 0 | 0 | 0 |
| DENISON | 2 | 8 | 2 | 5 | 1 | 44 | 0 | 23 | 2 | 10 | 1 | 6 | 7 | 8 | 5 | 7 | 17 | 8 | 31 | 15 | 7 | 2 | 10 | 5 |
| EUFULA | 23 | 8 | 1 | 11 | 1 | 44 | 0 | 25 | 1 | 14 | 1 | 8 | 5 | 11 | 1 | 8 | 42 | 19 | 55 | 31 | 3 | 1 | 0 | 1 |
| FALL RIVER | 12 | 8 | 0 | 8 | 0 | 18 | 0 | 11 | 0 | 10 | 0 | 6 | 4 | 5 | 0 | 4 | 39 | 40 | 44 | 40 | 0 | 0 | 0 | 0 |
| FORT GIBSON | 24 | 31 | 3 | 24 | 0 | 62 | 0 | 27 | 0 | 12 | 0 | 5 | 4 | 5 | 7 | 5 | 16 | 11 | 33 | 16 | 1 | 2 | 2 | 2 |
| FORT SUPPLY | 16 | 25 | 9 | 19 | 4 | 24 | 1 | 14 | 0 | 9 | 1 | 5 | 1 | 4 | 2 | 3 | 58 | 38 | 72 | 50 | 0 | 0 | 1 | 0 |
| GREAT SALT PLAINS | 12 | 11 | 4 | 10 | 12 | 14 | 0 | 10 | 1 | 1 | 0 | 1 | 2 | 7 | 0 | 4 | 41 | 47 | 65 | 49 | 0 | 0 | 0 | 0 |
| HEYBURN | 14 | 28 | 9 | 20 | 3 | 36 | 0 | 19 | 1 | 3 | 1 | 2 | 3 | 5 | 3 | 4 | 43 | 9 | 58 | 28 | 8 | 0 | 3 | 3 |
| HULAH | 14 | 12 | 7 | 11 | 6 | 48 | 1 | 21 | 1 | 12 | 0 | 5 | 2 | 0 | 0 | 1 | 26 | 20 | 28 | 24 | 2 | 2 | 1 | 2 |
| KEYSTONE | 15 | 12 | 9 | 13 | 5 | 17 | 3 | 10 | 1 | 1 | 0 | 1 | 5 | 4 | 3 | 4 | 41 | 38 | 56 | 42 | 1 | 1 | 2 | 1 |
| OOLAGAH | 12 | 17 | 7 | 13 | 0 | 3 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 48 | 40 | 50 | 45 | 0 | 0 | 1 | 0 |
| TENKILLER | 12 | 17 | 4 | 13 | 1 | 48 | 1 | 23 | 1 | 25 | 3 | 13 | 3 | 3 | 1 | 3 | 49 | 28 | 54 | 40 | 2 | 2 | 5 | 3 |
| TORONTO | 6 | 11 | 1 | 8 | 0 | 7 | 0 | 4 | 0 | 5 | 0 | 3 | 4 | 9 | 3 | 6 | 47 | 47 | 54 | 48 | 0 | 0 | 0 | 0 |
| WISTER | 5 | 8 | 3 | 6 | 0 | 33 | 0 | 15 | 1 | 5 | 0 | 3 | 1 | 2 | 1 | 1 | 35 | 39 | 62 | 44 | 3 | 0 | 5 | 2 |
| DISTRICT WT AVERAGE | 15 | 15 | 6 | 13 | 3 | 28 | 0 | 14 | 1 | 7 | 1 | 4 | 3 | 5 | 2 | 4 | 40 | 29 | 52 | 37 | 2 | 1 | 2 | 1 |

DISTRICT: TULSA

YEAR: 1967

PLAN FORMULATION STUDIES - RECREATION

RECREATION USE DATA SUMMARY

| PROJECT | CAMPING ON PROJECT (%) | | | | STAYING IN AREA (%) | | | | CAMPING ON PROJ. AND STAYING IN AREA (%) | | | | AVG. DURATION OF VISIT CAMPING ON PROJ. (Days) | | | | AVG. DURATION OF VISIT STAYING IN AREA (Days) | | | | AVG. DURATION OF VISIT DAY USE (Hours) | | | |
|---------------------|------------------------|-----|------|--------|---------------------|-----|------|--------|--|-----|------|--------|--|-----|------|--------|---|-----|------|--------|--|-----|------|--------|
| | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG |
| CANTON | 5 | 9 | 5 | 7 | 1 | 1 | 1 | 1 | 6 | 10 | 6 | 8 | 2.3 | 3.8 | 4.0 | 3.2 | 2.3 | 4.4 | 2.3 | 3.2 | 4.1 | 3.8 | 3.0 | 3.8 |
| DENISON | 11 | 17 | 3 | 12 | 29 | 37 | 24 | 32 | 40 | 54 | 27 | 44 | 3.2 | 4.1 | 3.0 | 3.6 | 3.4 | 3.9 | 3.6 | 3.7 | 4.0 | 4.1 | 4.0 | 4.1 |
| EUFULA | 11 | 44 | 7 | 29 | 7 | 8 | 6 | 7 | 18 | 52 | 13 | 36 | 2.7 | 4.3 | 2.6 | 3.6 | 3.1 | 4.4 | 4.9 | 4.1 | 3.5 | 3.4 | 2.9 | 3.4 |
| FALL RIVER | 10 | 29 | 12 | 21 | 6 | 2 | 13 | 5 | 16 | 31 | 25 | 26 | 2.4 | 2.8 | 2.0 | 2.6 | 3.6 | 2.2 | 2.0 | 2.5 | 4.2 | 3.5 | 4.0 | 3.8 |
| FORT GIBSON | 16 | 19 | 0 | 15 | 1 | 1 | 0 | 1 | 17 | 20 | 0 | 16 | 2.3 | 3.6 | 0.0 | 2.9 | 2.0 | 4.3 | 0.0 | 3.1 | 3.9 | 4.2 | 2.4 | 3.8 |
| FORT SUPPLY | 1 | 2 | 2 | 2 | 0 | 1 | 0 | 1 | 1 | 3 | 2 | 3 | 2.3 | 3.1 | 2.7 | 2.8 | 0.0 | 2.0 | 0.0 | 2.0 | 2.5 | 3.1 | 2.4 | 2.8 |
| GREAT SALT PLAINS | 1 | 3 | 3 | 2 | 0 | 0 | 1 | 0 | 1 | 3 | 4 | 2 | 2.6 | 2.6 | 3.2 | 2.7 | 0.0 | 4.0 | 2.0 | 3.4 | 3.5 | 2.6 | 2.3 | 2.8 |
| HEYBURN | 0 | 12 | 7 | 7 | 0 | 0 | 0 | 0 | 0 | 12 | 7 | 7 | 2.0 | 2.5 | 2.0 | 2.3 | 0.0 | 0.0 | 0.0 | 0.0 | 2.1 | 3.1 | 1.9 | 2.6 |
| HULAH | 19 | 31 | 4 | 20 | 6 | 7 | 3 | 6 | 25 | 38 | 7 | 26 | 2.2 | 3.4 | 2.0 | 2.6 | 2.1 | 3.4 | 2.0 | 2.6 | 3.2 | 3.0 | 2.9 | 3.0 |
| KEYSTONE | 1 | 10 | 4 | 5 | 0 | 0 | 0 | 0 | 1 | 10 | 4 | 5 | 2.3 | 3.3 | 2.2 | 2.7 | 2.4 | 3.6 | 0.0 | 3.0 | 2.3 | 2.4 | 1.9 | 2.3 |
| OLOGAH | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 2.3 | 2.3 | 2.0 | 2.2 | 0.0 | 0.0 | 0.0 | 0.0 | 3.1 | 3.4 | 3.0 | 3.2 |
| TENKILLER | 4 | 28 | 5 | 16 | 8 | 19 | 21 | 16 | 12 | 47 | 26 | 32 | 4.1 | 4.5 | 3.3 | 4.1 | 3.0 | 4.4 | 2.2 | 3.5 | 2.5 | 3.5 | 3.0 | 3.1 |
| TORONTO | 12 | 24 | 11 | 18 | 9 | 2 | 2 | 4 | 21 | 26 | 13 | 22 | 3.2 | 2.8 | 2.1 | 2.8 | 2.0 | 3.1 | 2.0 | 2.6 | 3.9 | 3.3 | 3.6 | 3.5 |
| WISTER | 19 | 20 | 9 | 17 | 6 | 2 | 2 | 3 | 25 | 22 | 11 | 20 | 4.4 | 3.0 | 3.0 | 3.4 | 2.3 | 3.7 | 2.0 | 2.9 | 3.2 | 2.1 | 2.1 | 2.4 |
| DISTRICT WT AVERAGE | 6 | 18 | 4 | 11 | 4 | 5 | 5 | 5 | 10 | 23 | 9 | 16 | 2.6 | 3.4 | 2.7 | 3.0 | 2.6 | 3.8 | 2.7 | 3.2 | 3.3 | 3.3 | 2.8 | 3.2 |

YEAR: 1967

DISTRICT: TULSA

PLAN FORMULATION STUDIES - RECREATION RECREATION USE DATA SUMMARY

| PROJECT | NO. OF PERSONS SURVEYED | | | | % OF VISITORS ON WEEKEND | | | | NO. OF PERSONS PER VEHICLE | | | | % OF VEHICLES WITH BOAT-TRAILER | | | | % OF VEHICLES WITH HOUSE-TRAILER | | | | FISHING (%) | | | |
|---------------------|-------------------------|-------|-------|--------|--------------------------|------|-------|------|----------------------------|------|-------|------|---------------------------------|------|-------|------|----------------------------------|------|-------|------|-------------|------|-------|------|
| | SP | | TOTAL | | SP | | TOTAL | | SP | | TOTAL | | SP | | TOTAL | | SP | | TOTAL | | SP | | TOTAL | |
| | SUM | FALL | SUM | FALL | SUM | FALL | SUM | FALL | SUM | FALL | SUM | FALL | SUM | FALL | SUM | FALL | SUM | FALL | SUM | FALL | SUM | FALL | SUM | FALL |
| CANTON | 3,833 | 6,347 | 1,974 | 2,154 | 82 | 62 | 75 | 70 | 3.0 | 3.2 | 3.0 | 3.1 | 9 | 12 | 5 | 10 | 1 | 1 | 1 | 1 | 42 | 30 | 27 | 33 |
| DENISON | 1,006 | 2,032 | 679 | 3,717 | 74 | 65 | 66 | 68 | 2.5 | 3.2 | 2.9 | 2.9 | 29 | 27 | 28 | 28 | 0 | 2 | 0 | 1 | 73 | 54 | 67 | 62 |
| EUFULA | 1,528 | 3,412 | 775 | 5,715 | 62 | 57 | 50 | 57 | 2.6 | 3.2 | 2.3 | 2.9 | 19 | 13 | 20 | 16 | 1 | 1 | 1 | 1 | 47 | 26 | 49 | 36 |
| FALL RIVER | 824 | 1,094 | 453 | 2,371 | 80 | 70 | 79 | 75 | 3.1 | 3.5 | 3.1 | 3.3 | 9 | 12 | 8 | 10 | 4 | 5 | 4 | 4 | 55 | 35 | 44 | 44 |
| FORT GIBSON | 1,082 | 1,540 | 553 | 3,175 | 63 | 76 | 72 | 70 | 2.5 | 3.4 | 2.4 | 2.9 | 19 | 23 | 20 | 21 | 3 | 3 | 2 | 3 | 73 | 37 | 72 | 58 |
| FORT SUPPLY | 946 | 1,785 | 547 | 3,278 | 69 | 65 | 71 | 67 | 2.7 | 3.3 | 2.6 | 3.0 | 5 | 17 | 3 | 10 | 1 | 0 | 0 | 0 | 26 | 18 | 22 | 21 |
| GREAT SALT PLAINS | 814 | 1,096 | 720 | 2,630 | 80 | 63 | 72 | 71 | 2.8 | 3.0 | 2.5 | 2.8 | 1 | 6 | 0 | 3 | 0 | 1 | 2 | 1 | 34 | 24 | 36 | 31 |
| HEYBURN | 538 | 1,837 | 320 | 2,695 | 83 | 56 | 62 | 63 | 2.9 | 4.0 | 2.6 | 3.5 | 6 | 6 | 2 | 5 | 1 | 1 | 0 | 1 | 25 | 4 | 29 | 13 |
| HULAH | 451 | 624 | 308 | 1,383 | 60 | 47 | 77 | 59 | 2.8 | 3.7 | 2.7 | 3.1 | 9 | 15 | 4 | 10 | 3 | 2 | 1 | 2 | 52 | 38 | 40 | 43 |
| KEYSTONE | 1,655 | 2,976 | 1,083 | 5,714 | 77 | 53 | 71 | 65 | 2.6 | 3.5 | 2.8 | 3.1 | 31 | 15 | 13 | 20 | 1 | 1 | 0 | 1 | 52 | 12 | 27 | 29 |
| OOLAGAN | 3,237 | 4,029 | 2,800 | 10,066 | 59 | 61 | 70 | 63 | 3.6 | 3.5 | 3.5 | 3.5 | 3 | 4 | 3 | 3 | 0 | 0 | 0 | 0 | 42 | 37 | 34 | 38 |
| TORONTO | 399 | 785 | 323 | 1,507 | 68 | 68 | 68 | 68 | 3.8 | 3.8 | 3.6 | 3.8 | 16 | 18 | 9 | 15 | 5 | 6 | 7 | 6 | 48 | 21 | 32 | 31 |
| TENKILLER | 634 | 2,082 | 343 | 3,059 | 70 | 68 | 65 | 68 | 2.6 | 3.5 | 2.7 | 3.2 | 11 | 22 | 17 | 19 | 0 | 2 | 4 | 2 | 36 | 29 | 52 | 34 |
| WISTER | 923 | 1,101 | 279 | 2,303 | 52 | 59 | 64 | 56 | 2.1 | 2.6 | 2.6 | 2.4 | 9 | 10 | 4 | 9 | 2 | 5 | 8 | 4 | 62 | 42 | 21 | 49 |
| DISTRICT WT AVERAGE | | | | | 70 | 62 | 69 | 66 | 2.8 | 3.3 | 2.9 | 3.1 | 13 | 13 | 9 | 12 | 1 | 1 | 1 | 1 | 48 | 29 | 38 | 37 |

2133

| PROJECT | PICNICKING (%) | | | | SWIMMING (%) | | | | WATER SKIING (%) | | | | PLEASURE BOATING (%) | | | | SIGHTSEEING (%) | | | | OTHERS (%) | | | |
|---------------------|----------------|-----|------|--------|--------------|-----|------|--------|------------------|-----|------|--------|----------------------|-----|------|--------|-----------------|-----|------|--------|------------|-----|------|--------|
| | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG |
| CANTON | 10 | 14 | 6 | 11 | 0 | 31 | 0 | 15 | 0 | 4 | 0 | 2 | 2 | 5 | 2 | 3 | 48 | 23 | 65 | 38 | 2 | 0 | 1 | 1 |
| DENISON | 7 | 4 | 1 | 4 | 1 | 38 | 0 | 19 | 0 | 7 | 0 | 3 | 10 | 7 | 11 | 9 | 10 | 5 | 15 | 8 | 2 | 3 | 7 | 3 |
| EUFULA | 6 | 7 | 2 | 6 | 0 | 32 | 0 | 18 | 1 | 6 | 0 | 4 | 6 | 7 | 3 | 6 | 39 | 25 | 43 | 32 | 2 | 1 | 3 | 2 |
| FALL RIVER | 7 | 10 | 9 | 9 | 0 | 11 | 0 | 5 | 1 | 4 | 0 | 2 | 2 | 7 | 3 | 4 | 38 | 41 | 48 | 41 | 0 | 0 | 0 | 0 |
| FORT GIBSON | 15 | 24 | 11 | 18 | 0 | 76 | 0 | 32 | 1 | 25 | 0 | 11 | 10 | 1 | 3 | 5 | 17 | 7 | 19 | 13 | 1 | 2 | 1 | 1 |
| FORT SUPPLY | 11 | 24 | 6 | 16 | 0 | 33 | 1 | 16 | 1 | 10 | 0 | 5 | 4 | 10 | 1 | 6 | 59 | 28 | 69 | 46 | 0 | 2 | 0 | 1 |
| GREAT SALT PLAINS | 7 | 12 | 7 | 9 | 4 | 28 | 0 | 12 | 0 | 1 | 0 | 0 | 1 | 5 | 0 | 2 | 57 | 35 | 58 | 49 | 0 | 0 | 0 | 0 |
| HEYBURN | 14 | 17 | 24 | 17 | 3 | 55 | 0 | 35 | 1 | 5 | 0 | 3 | 7 | 3 | 2 | 4 | 47 | 13 | 42 | 25 | 6 | 1 | 0 | 2 |
| HULAH | 7 | 8 | 3 | 6 | 0 | 43 | 0 | 18 | 0 | 11 | 0 | 5 | 3 | 7 | 1 | 4 | 33 | 15 | 34 | 26 | 3 | 4 | 9 | 5 |
| KEYSTONE | 12 | 13 | 16 | 13 | 3 | 41 | 1 | 20 | 1 | 4 | 0 | 2 | 6 | 6 | 5 | 6 | 20 | 17 | 49 | 24 | 0 | 0 | 1 | 0 |
| OOLAGAN | 7 | 21 | 13 | 14 | 0 | 7 | 0 | 3 | 0 | 2 | 0 | 1 | 0 | 1 | 1 | 1 | 54 | 42 | 54 | 49 | 0 | 0 | 0 | 0 |
| TORONTO | 10 | 11 | 5 | 9 | 0 | 36 | 0 | 18 | 0 | 6 | 1 | 3 | 6 | 11 | 4 | 8 | 47 | 37 | 52 | 43 | 0 | 0 | 0 | 0 |
| TENKILLER | 10 | 18 | 1 | 14 | 0 | 58 | 1 | 37 | 0 | 27 | 1 | 17 | 3 | 1 | 4 | 2 | 56 | 22 | 41 | 33 | 2 | 4 | 0 | 3 |
| WISTER | 7 | 12 | 5 | 9 | 0 | 13 | 0 | 6 | 0 | 2 | 0 | 1 | 2 | 2 | 0 | 2 | 28 | 32 | 67 | 34 | 0 | 0 | 1 | 0 |
| DISTRICT WT AVERAGE | 9 | 14 | 9 | 11 | 1 | 33 | 0 | 16 | 0 | 7 | 0 | 3 | 4 | 5 | 3 | 4 | 40 | 24 | 50 | 34 | 1 | 1 | 1 | 1 |

DISTRICT: TULSA

YEAR: 1968

| PLAN FORMULATION STUDIES - RECREATION | | | | | | | | | | | | RECREATION USE DATA SUMMARY | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------|------------------------|-----|------|----|-----|---|---------------------|-----|------|----|-----|-----------------------------|--|-----|------|-----|-----|-----|---|-----|------|-----|-----|-----|---|-----|------|-----|-----|--|--|-----|------|----|-----|--|
| PROJECT | CAMPING ON PROJECT (%) | | | | | | STAYING IN AREA (%) | | | | | | CAMPING ON PROJ. AND STAYING IN AREA (%) | | | | | | AVG. DURATION OF VISIT CAMPING ON PROJ (Days) | | | | | | AVG. DURATION OF VISIT STAYING IN AREA (Days) | | | | | | AVG. DURATION OF VISIT DAY USE (Hours) | | | | | |
| | SP | SUM | FALL | WT | AVG | | SP | SUM | FALL | WT | AVG | | SP | SUM | FALL | WT | AVG | | SP | SUM | FALL | WT | AVG | | SP | SUM | FALL | WT | AVG | | SP | SUM | FALL | WT | AVG | |
| | 8 | 10 | 6 | 9 | 2 | 1 | 1 | 1 | 1 | 1 | 10 | 11 | 7 | 10 | 3.2 | 3.2 | 3.9 | 3.3 | 3.0 | 4.8 | 7.2 | 4.6 | 3.3 | 4.6 | 3.3 | 4.6 | 3.0 | 3.9 | | | | | | | | |
| CANTON | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DENISON | 5 | 18 | 6 | 12 | 34 | 2 | 31 | 17 | 39 | 20 | 37 | 29 | 20 | 37 | 29 | 4.1 | 3.9 | 6.3 | 4.4 | 2.9 | 2.4 | 3.6 | 2.8 | 4.8 | 4.3 | 4.3 | 4.3 | 4.5 | | | | | | | | |
| EUFULA | 18 | 27 | 9 | 22 | 8 | 5 | 7 | 6 | 26 | 32 | 16 | 28 | 32 | 16 | 28 | 2.6 | 3.7 | 6.1 | 3.8 | 3.3 | 2.9 | 2.4 | 2.9 | 3.0 | 3.2 | 3.2 | 3.1 | | | | | | | | | |
| FALL RIVER | 20 | 19 | 15 | 18 | 0 | 0 | 3 | 1 | 20 | 19 | 18 | 19 | 19 | 18 | 19 | 2.5 | 2.6 | 2.4 | 2.5 | 0.0 | 0.0 | 2.0 | 2.0 | 4.2 | 3.7 | 3.5 | 3.8 | | | | | | | | | |
| FORT GIBSON | 14 | 27 | 8 | 18 | 3 | 0 | 2 | 2 | 17 | 27 | 10 | 20 | 27 | 10 | 20 | 2.3 | 2.7 | 2.2 | 2.4 | 2.0 | 0.0 | 3.3 | 2.5 | 4.8 | 4.6 | 4.6 | 4.7 | | | | | | | | | |
| FORT SUPPLY | 1 | 3 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 2 | 3 | 0 | 2 | 2.0 | 3.2 | 0.0 | 2.7 | 0.0 | 0.0 | 0.0 | 0.0 | 2.6 | 3.6 | 2.2 | 3.0 | | | | | | | | | |
| GREAT SALT PLAINS | 1 | 4 | 5 | 3 | 0 | 0 | 0 | 0 | 1 | 4 | 5 | 3 | 4 | 5 | 3 | 2.0 | 2.2 | 3.8 | 2.6 | 0.0 | 0.0 | 0.0 | 0.0 | 2.3 | 2.6 | 2.1 | 2.4 | | | | | | | | | |
| HEYBURN | 2 | 9 | 0 | 6 | 0 | 0 | 0 | 0 | 2 | 9 | 0 | 6 | 9 | 0 | 6 | 2.1 | 2.7 | 0.0 | 2.5 | 0.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.1 | 2.5 | 2.1 | | | | | | | | | |
| HULAH | 9 | 27 | 4 | 15 | 5 | 0 | 4 | 3 | 14 | 27 | 8 | 18 | 27 | 8 | 18 | 2.5 | 3.0 | 2.0 | 2.6 | 2.6 | 2.0 | 2.0 | 2.2 | 3.1 | 3.5 | 2.6 | 3.1 | | | | | | | | | |
| KEYSTONE | 8 | 8 | 0 | 6 | 0 | 0 | 0 | 0 | 8 | 8 | 0 | 6 | 8 | 0 | 6 | 2.4 | 3.3 | 4.0 | 3.1 | 0.0 | 0.0 | 0.0 | 0.0 | 3.8 | 2.9 | 2.4 | 3.1 | | | | | | | | | |
| OOLAGAN | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 2.7 | 2.4 | 2.5 | 2.5 | 0.0 | 0.0 | 0.0 | 0.0 | 2.9 | 3.0 | 2.6 | 2.9 | | | | | | | | | |
| TORONTO | 12 | 23 | 16 | 19 | 1 | 0 | 0 | 0 | 13 | 23 | 16 | 19 | 23 | 16 | 19 | 2.0 | 3.1 | 2.1 | 2.6 | 2.6 | 0.0 | 0.0 | 2.6 | 4.1 | 3.8 | 3.2 | 3.7 | | | | | | | | | |
| TENKILLER | 4 | 35 | 12 | 25 | 25 | 0 | 18 | 8 | 29 | 35 | 30 | 33 | 35 | 30 | 33 | 2.4 | 4.2 | 2.3 | 3.5 | 2.8 | 14.0 | 2.9 | 9.9 | 2.6 | 3.1 | 3.7 | 3.1 | | | | | | | | | |
| WISTER | 10 | 13 | 20 | 12 | 0 | 0 | 5 | 1 | 10 | 13 | 25 | 13 | 13 | 25 | 13 | 2.4 | 2.6 | 2.8 | 2.5 | 2.0 | 0.0 | 5.1 | 2.6 | 3.7 | 3.3 | 1.8 | 3.3 | | | | | | | | | |
| DISTRICT WT AVERAGE | 8 | 14 | 5 | 10 | 4 | 1 | 4 | 3 | 12 | 15 | 9 | 13 | 15 | 9 | 13 | 2.7 | 3.1 | 3.5 | 3.0 | 2.8 | 4.8 | 4.4 | 4.0 | 3.4 | 3.6 | 2.9 | 3.4 | | | | | | | | | |

YEAR: 1968

DISTRICT: TULSA

PLAN FORMULATION AND EVALUATION STUDIES
RECREATION

SUPPLEMENT NO. 1
SUPPLEMENTAL RESERVOIR RECREATION USE DATA - 1969

TO
TECHNICAL REPORT NO. 2
ESTIMATING INITIAL RESERVOIR RECREATION USE

APPENDIX A

PROJECT DATA

FEBRUARY 1971

Introduction

1. Recreation-use surveys to obtain information for reporting public attendance were instituted Corps-wide by the Office of the Chief of Engineers (OCE) in December 1962. An important purpose of the surveys was to assemble a body of data describing recreation use to provide a factual basis for estimating recreation use at reservoirs included in the Corps' civil works program. The original surveys provided limited information for recreation planning purposes and resulted in a proposal by the Sacramento District for a refined survey with a more rigid, statistical approach, which was adopted by OCE in 1966 on a test basis. Fifty-two reservoirs in seven districts were selected for the test program. The modified survey was conducted for three years: 1966, 1967, and 1968. During this period, approximately 735,000 people in over 238,000 vehicles were surveyed. A methodology based on this data was developed for estimating the recreation attendance that would occur at proposed Corps of Engineers' projects. This methodology was published as Technical Report No. 2, "Estimating Initial Reservoir Recreation Use". The data utilized in employing the methodology was included in the appendices to the report.

Purpose and Scope

2. This supplemental report has been prepared to update the data contained in Technical Report No. 2, "Estimating Initial Reservoir Recreation Use", through CY 1969. Contained herein are the 1969 recreation attendance for the participating reservoirs and the 1966-1969 average percentages of annual attendance during the peak months of use (Appendix A), the 1966-1969 average per capita use rates for the participating reservoirs (Appendix B), and the 1969 recreation-use data summaries for the participating reservoirs compiled from the recreation-use surveys (Appendix C).

PROJECT DATA

1969 Recreation Use

| <u>District</u> | <u>Page</u> |
|-----------------|-------------|
| Fort Worth | A-3 |
| Little Rock | A-3 |
| Nashville | A-3 |
| Portland | A-3 |
| Sacramento | A-3 |
| Savannah | A-4 |
| Tulsa | A-4 |

1966-1969 Monthly Use Percentages

| <u>District</u> | <u>Page</u> |
|-----------------|-------------|
| Fort Worth | A-5 |
| Little Rock | A-5 |
| Nashville | A-5 |
| Portland | A-5 |
| Sacramento | A-6 |
| Savannah | A-6 |
| Tulsa | A-6 |

1969 ATTENDANCE
(Recreation Days)

| District | Project | Attendance |
|-------------|------------------|------------|
| Fort Worth | Belton | 1,894,600 |
| | Benbrook | 2,425,400 |
| | Canyon | 992,900 |
| | Dam B | 625,600 |
| | Garza-Little Elm | 2,401,200 |
| | Grapevine | 2,266,700 |
| | Hords Creek | 149,500 |
| | Lavon | 3,171,800 |
| | Navarro Mills | 591,200 |
| | Proctor | 414,400 |
| | San Angelo | 427,900 |
| | Whitney | 3,276,200 |
| Little Rock | Beaver | 2,040,900 |
| | Bull Shoals | 3,156,800 |
| | Greers Ferry | 2,207,000 |
| | Norfork | 2,099,500 |
| | Table Rock | 4,876,800 |
| Nashville | Center Hill | 2,289,600 |
| | Cheatham | 1,198,800 |
| | Dale Hollow | 1,650,300 |
| | Lake Cumberland | 5,139,600 |
| | Old Hickory | 5,002,300 |
| Portland | Cottage Grove | 319,600 |
| | Detroit | 498,600 |
| | Dorena | 169,500 |
| | Fern Ridge | 1,425,100 |
| | Hills Creek | 136,700 |
| | Lookout Point | 348,200 |
| | The Dalles | 438,400 |
| Sacramento | Black Butte | 136,900 |
| | Englebright | 114,200 |
| | Isabella | 1,381,100 |
| | New Hogan | 294,200 |
| | Pine Flat | 565,700 |
| | Success | 533,300 |
| | Terminus | 300,600 |

| District | Project | Attendance |
|----------|-------------------|------------|
| Savannah | Clark Hill | 3,722,400 |
| | Hartwell | 4,826,400 |
| Tulsa | Canton | 1,141,500 |
| | Denison | 9,073,300 |
| | Eufaula | 2,766,400 |
| | Fall River | 402,000 |
| | Fort Gibson | 2,671,900 |
| | Fort Supply | 253,500 |
| | Great Salt Plains | 490,100 |
| | Heyburn | 416,000 |
| | Hulah | 489,700 |
| | Keystone | 2,152,200 |
| | Oologah | 1,056,800 |
| | Tenkiller | 1,804,100 |
| | Toronto | 338,200 |
| | Wister | 758,900 |

1966-1969 AVERAGE PERCENTAGES OF ANNUAL ATTENDANCE
DURING PEAK MONTHS OF USE

| District | Project | Apr | May | Jun | Jul | Aug | Sep | Total |
|-------------|------------------|------|------|------|------|------|------|-------|
| Ft. Worth | Belton | 8.9 | 12.3 | 14.7 | 14.7 | 13.1 | 7.3 | 71.0 |
| | Benbrook | 10.6 | 13.1 | 14.4 | 17.7 | 11.1 | 6.5 | 73.4 |
| | Canyon | 12.4 | 10.2 | 12.2 | 16.4 | 12.1 | 7.6 | 70.9 |
| | Dam B | 11.6 | 10.8 | 16.9 | 17.0 | 13.3 | 7.4 | 77.0 |
| | Garza-Little Elm | 9.4 | 11.5 | 14.4 | 14.1 | 14.0 | 9.9 | 73.3 |
| | Grapevine | 8.9 | 13.5 | 16.1 | 19.2 | 13.7 | 7.0 | 78.4 |
| | Hords Creek | 7.1 | 11.8 | 17.4 | 21.1 | 17.6 | 8.9 | 83.9 |
| | Lavon | 10.5 | 10.8 | 12.5 | 14.2 | 10.1 | 7.6 | 65.7 |
| | Navarro Mills | 9.2 | 11.1 | 13.3 | 15.0 | 12.4 | 10.0 | 71.0 |
| | Proctor | 12.8 | 14.3 | 13.9 | 16.7 | 13.2 | 7.4 | 78.3 |
| Little Rock | San Angelo | 10.7 | 12.4 | 10.2 | 10.4 | 9.0 | 7.9 | 60.6 |
| | Whitney | 8.7 | 9.9 | 15.5 | 13.5 | 11.9 | 8.6 | 68.1 |
| | Beaver | 9.4 | 11.5 | 14.1 | 15.1 | 14.2 | 10.5 | 74.8 |
| | Bull Shoals | 10.3 | 10.4 | 13.7 | 16.7 | 14.9 | 9.1 | 75.1 |
| | Greers Ferry | 9.3 | 12.5 | 17.3 | 20.8 | 16.5 | 7.4 | 83.8 |
| | Norfork | 7.7 | 10.2 | 15.9 | 18.9 | 15.0 | 9.3 | 77.0 |
| | Table Rock | 7.8 | 10.0 | 16.1 | 18.6 | 17.1 | 9.0 | 78.6 |
| | Center Hill | 8.5 | 12.6 | 16.1 | 17.6 | 13.3 | 7.2 | 75.3 |
| | Cheatham | 9.9 | 12.4 | 12.2 | 12.8 | 11.2 | 7.9 | 66.4 |
| | Dale Hollow | 7.6 | 11.5 | 16.8 | 22.1 | 14.2 | 9.2 | 81.4 |
| Nashville | Lake Cumberland | 8.7 | 12.5 | 16.3 | 21.9 | 14.6 | 9.6 | 83.6 |
| | Old Hickory | 8.1 | 13.9 | 18.8 | 17.9 | 14.4 | 8.4 | 81.5 |
| | Cottage Grove | 4.9 | 10.8 | 18.7 | 30.9 | 21.4 | 5.2 | 91.9 |
| | Detroit | 7.1 | 11.1 | 17.1 | 22.4 | 22.5 | 10.2 | 90.4 |
| | Dorena | 8.3 | 11.3 | 14.0 | 21.1 | 14.7 | 6.9 | 76.3 |
| | Fern Ridge | 6.7 | 12.0 | 18.2 | 24.0 | 17.7 | 7.0 | 85.6 |
| | Hills Creek | 5.5 | 12.5 | 13.5 | 21.7 | 20.1 | 12.0 | 85.3 |
| | Lookout Point | 6.2 | 7.9 | 17.7 | 22.9 | 17.2 | 10.2 | 82.1 |
| | The Dalles | 8.8 | 10.4 | 15.3 | 19.4 | 18.4 | 10.5 | 82.8 |
| | Portland | | | | | | | |

| District | Project | Apr | May | Jun | Jul | Aug | Sep | Total |
|------------|-------------------|------|------|------|------|------|------|-------|
| Sacramento | Black Butte | 16.7 | 13.8 | 13.8 | 15.8 | 10.3 | 6.1 | 76.5 |
| | Englebright | 7.9 | 11.7 | 16.1 | 20.2 | 15.1 | 8.1 | 79.1 |
| | Isabella | 8.7 | 17.3 | 13.2 | 17.8 | 14.5 | 10.3 | 81.8 |
| | New Hogan | 11.2 | 15.7 | 14.4 | 15.5 | 12.3 | 7.2 | 76.3 |
| | Pine Flat | 10.1 | 14.3 | 12.0 | 15.7 | 14.4 | 7.9 | 74.4 |
| | Success | 11.9 | 13.6 | 13.6 | 12.7 | 11.1 | 8.4 | 71.3 |
| | Terminus | 10.5 | 15.9 | 12.9 | 12.4 | 14.1 | 8.5 | 74.3 |
| Savannah | Clark Hill | 11.2 | 12.1 | 16.2 | 18.7 | 13.2 | 8.8 | 80.2 |
| | Hartwell | 10.4 | 12.5 | 14.9 | 16.8 | 11.0 | 7.7 | 73.3 |
| Tulsa | Canton | 8.8 | 15.1 | 15.5 | 17.7 | 14.6 | 7.0 | 78.7 |
| | Denison | 7.9 | 10.5 | 14.7 | 16.6 | 13.6 | 9.5 | 72.8 |
| | Eufaula | 8.8 | 12.0 | 12.7 | 16.0 | 14.2 | 9.8 | 73.5 |
| | Fall River | 11.0 | 12.6 | 13.5 | 16.9 | 14.5 | 11.2 | 79.7 |
| | Fort Gibson | 8.1 | 9.8 | 13.0 | 16.7 | 13.7 | 9.8 | 71.1 |
| | Fort Supply | 8.0 | 15.1 | 14.6 | 15.7 | 13.2 | 7.8 | 74.4 |
| | Great Salt Plains | 9.7 | 16.0 | 16.4 | 18.8 | 13.7 | 6.4 | 81.0 |
| | Heyburn | 5.5 | 9.5 | 16.2 | 18.5 | 15.2 | 11.3 | 76.2 |
| | Hulah | 8.9 | 13.2 | 14.0 | 16.2 | 13.6 | 7.6 | 73.5 |
| | Keystone | 8.3 | 13.6 | 14.8 | 17.0 | 13.5 | 8.8 | 76.0 |
| | Oologah | 10.0 | 12.1 | 13.7 | 15.2 | 11.7 | 8.8 | 71.5 |
| | Tenkiller | 7.3 | 10.0 | 14.0 | 17.6 | 16.2 | 9.8 | 74.9 |
| | Toronto | 7.8 | 10.9 | 16.4 | 18.8 | 12.3 | 11.6 | 77.8 |
| | Wister | 9.4 | 12.8 | 13.0 | 10.8 | 10.7 | 8.9 | 65.6 |

PLAN FORMULATION AND EVALUATION STUDIES
RECREATION

SUPPLEMENT NO. 1
SUPPLEMENTAL RESERVOIR RECREATION USE DATA - 1969

TO
TECHNICAL REPORT NO. 2
ESTIMATING INITIAL RESERVOIR RECREATION USE

APPENDIX B
PER CAPITA USE RATES

FEBRUARY 1971

PER CAPITA USE RATES

List of Projects

| <u>District</u> | <u>Project</u> | <u>Page No.</u> |
|-----------------|------------------|-----------------|
| Fort Worth | Belton | B-4 |
| | Benbrook | B-5 |
| | Canyon | B-6 |
| | Dam B | B-7 |
| | Garza-Little Elm | B-8 |
| | Grapevine | B-9 |
| | Hords Creek | B-10 |
| | Lavon | B-11 |
| | Navarro Mills | B-12 |
| | Proctor | B-13 |
| | San Angelo | B-14 |
| | Whitney | B-15 |
| Little Rock | Beaver | B-16 |
| | Bull Shoals | B-17 |
| | Greers Ferry | B-18 |
| | Norfolk | B-19 |
| | Table Rock | B-20 |
| Nashville | Center Hill | B-21 |
| | Cheatham | B-22 |
| | Dale Hollow | B-23 |
| | Lake Cumberland | B-24 |
| | Old Hickory | B-25 |
| Portland | Cottage Grove | B-26 |
| | Detroit | B-27 |
| | Dorena | B-28 |
| | Fern Ridge | B-29 |
| | Hills Creek | B-30 |
| | Lookout Point | B-31 |
| | The Dalles | B-32 |
| Sacramento | Black Butte | B-33 |
| | Englebright | B-34 |
| | Isabella | B-35 |
| | New Hogan | B-36 |
| | Pine Flat | B-37 |
| | Success | B-38 |
| | Terminus | B-39 |

| <u>District</u> | <u>Project</u> | <u>Page No.</u> |
|-----------------|-------------------|-----------------|
| Savannah | Clark Hill | B-40 |
| | Hartwell | B-41 |
| Tulsa | Canton | B-42 |
| | Denison | B-43 |
| | Eufaula | B-44 |
| | Fall River | B-45 |
| | Fort Gibson | B-46 |
| | Fort Supply | B-47 |
| | Great Salt Plains | B-48 |
| | Heyburn | B-49 |
| | Hulah | B-50 |
| | Keystone | B-51 |
| | Oologah | B-52 |
| | Tenkiller | B-53 |
| | Toronto | B-54 |
| | Wister | B-55 |

PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1969

DISTRICT: FORT WORTH

PROJECT: BELTON

LEGEND

O SURVEY ESTIMATE

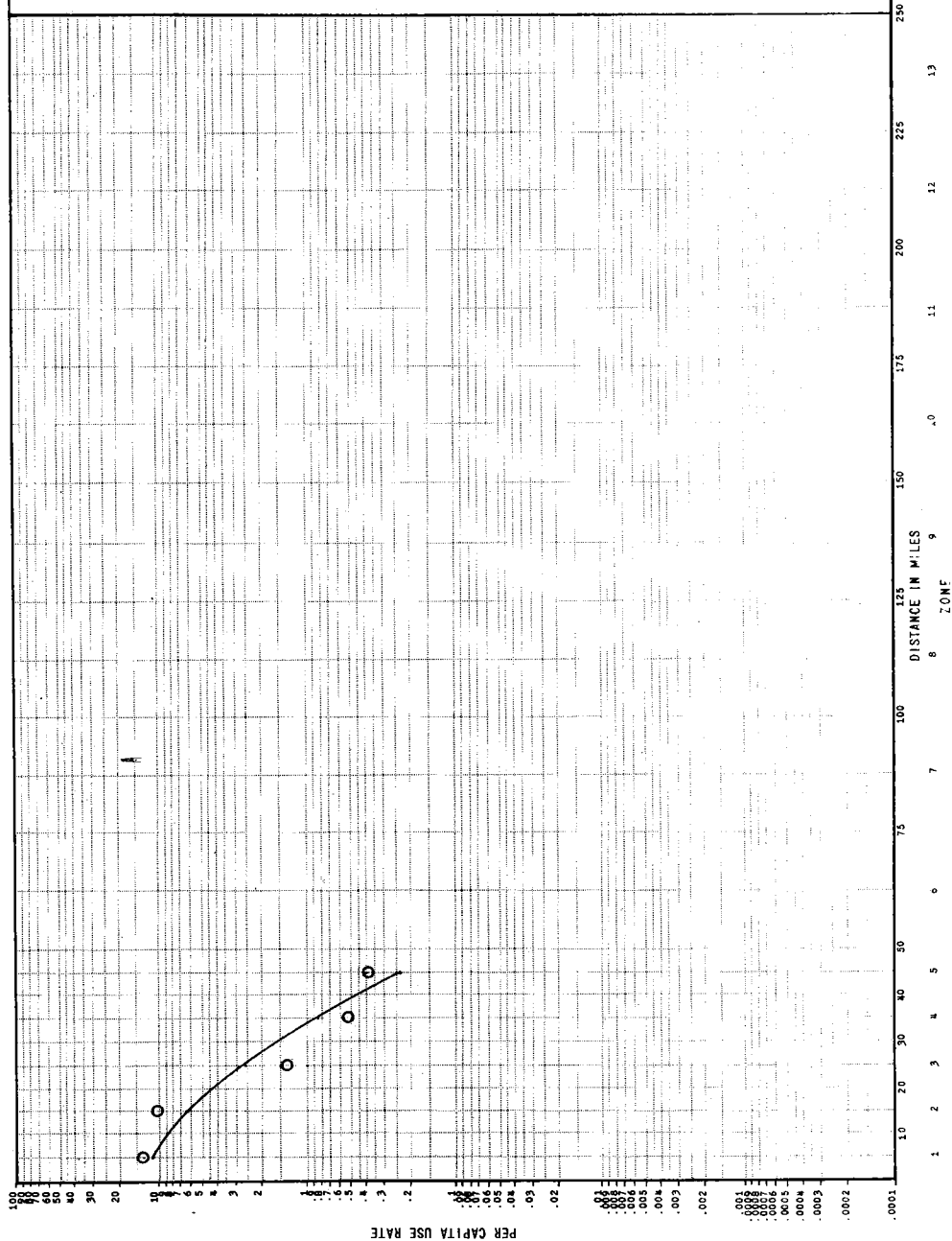
— REGRESSION ESTIMATE

REGRESSION EQUATION:
 $Y = \text{Exp}(2.606637 - 0.13433 X^{1.5})$

$R^2 = .87$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 11.6632 | 57,700 |
| 2 | 6.2100 | 56,700 |
| 3 | 2.5277 | 52,900 |
| 4 | .8393 | 37,750 |
| 5 | .2348 | 179,800 |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/REGRESSION ESTIMATE
2/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1969

DISTRICT: FORT WORTH
PROJECT: BENBROOK

LEGEND

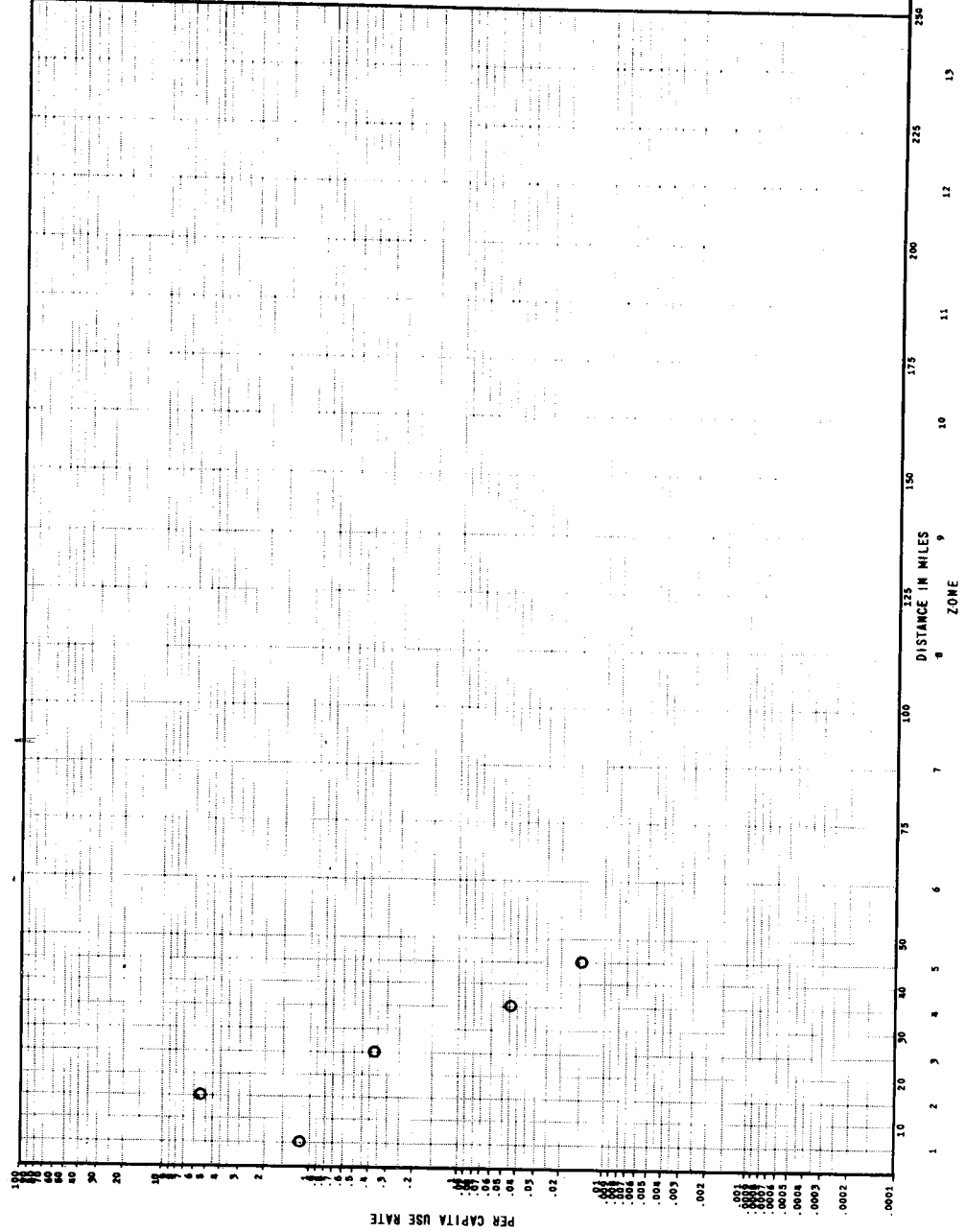
O SURVEY ESTIMATE
— REGRESSION ESTIMATE
REGRESSION EQUATION:

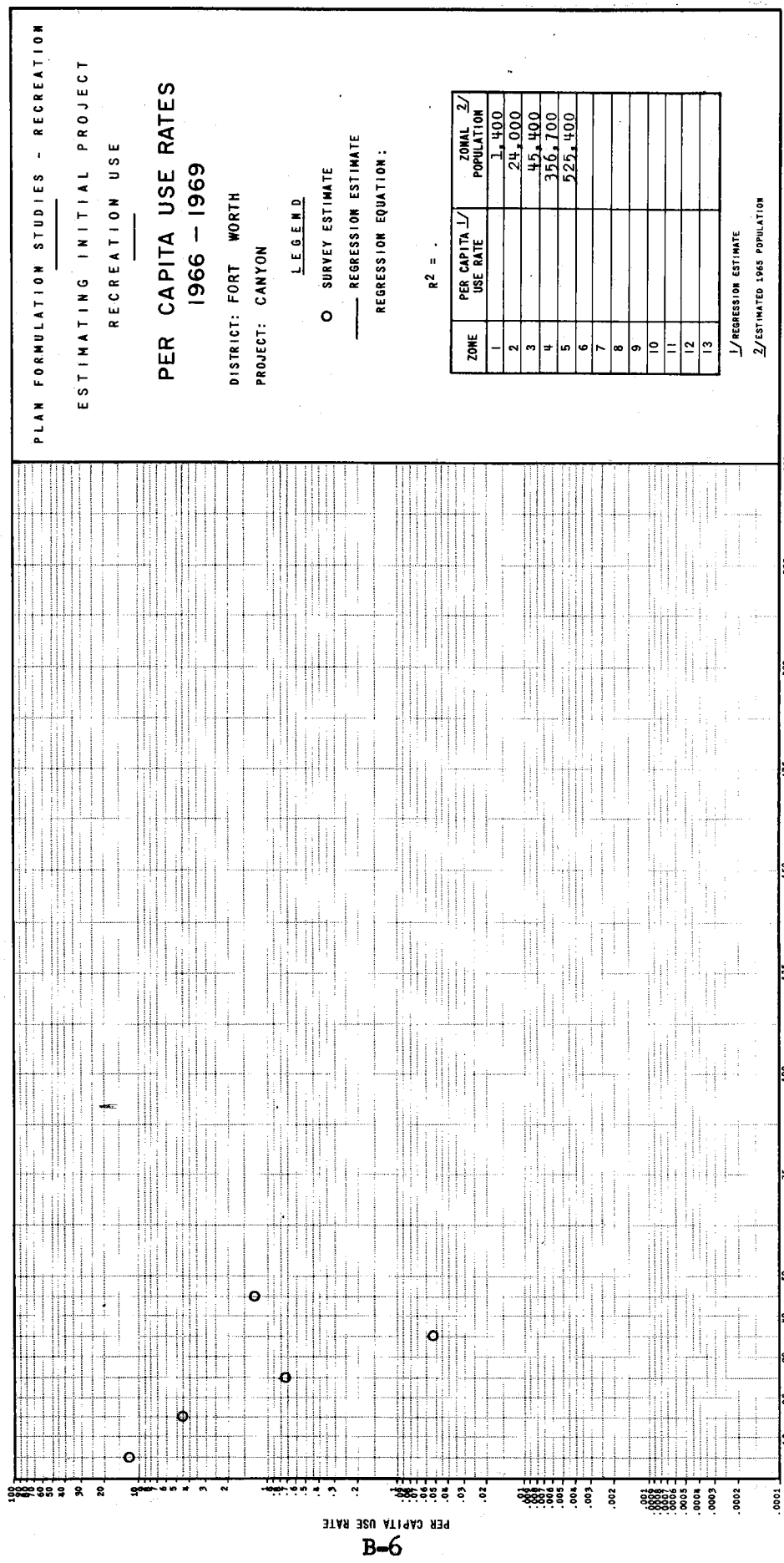
R² = .

| ZONE | PER CAPITA 1/ USE RATE | ZONAL 2/ POPULATION |
|------|---------------------------|------------------------|
| 1 | | 75,000 |
| 2 | | 326,500 |
| 3 | | 149,100 |
| 4 | | 263,500 |
| 5 | | 439,300 |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/ REGRESSION ESTIMATE

2/ ESTIMATED 1965 POPULATION





PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT

RECREATION USE

PER CAPITA USE RATES 1966 - 1969

DISTRICT: FORT WORTH

PROJECT: CANYON

LEGEND

O SURVEY ESTIMATE

— REGRESSION ESTIMATE

REGRESSION EQUATION:

$R^2 = .99$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | | 1,400 |
| 2 | | 24,000 |
| 3 | | 45,400 |
| 4 | | 356,700 |
| 5 | | 525,400 |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

— REGRESSION ESTIMATE

— ESTIMATED 1965 POPULATION

PER CAPITA USE RATE

DISTANCE IN MILES
ZONE

PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1969

DISTRICT: FORT WORTH
PROJECT: DAM 8

LEGEND

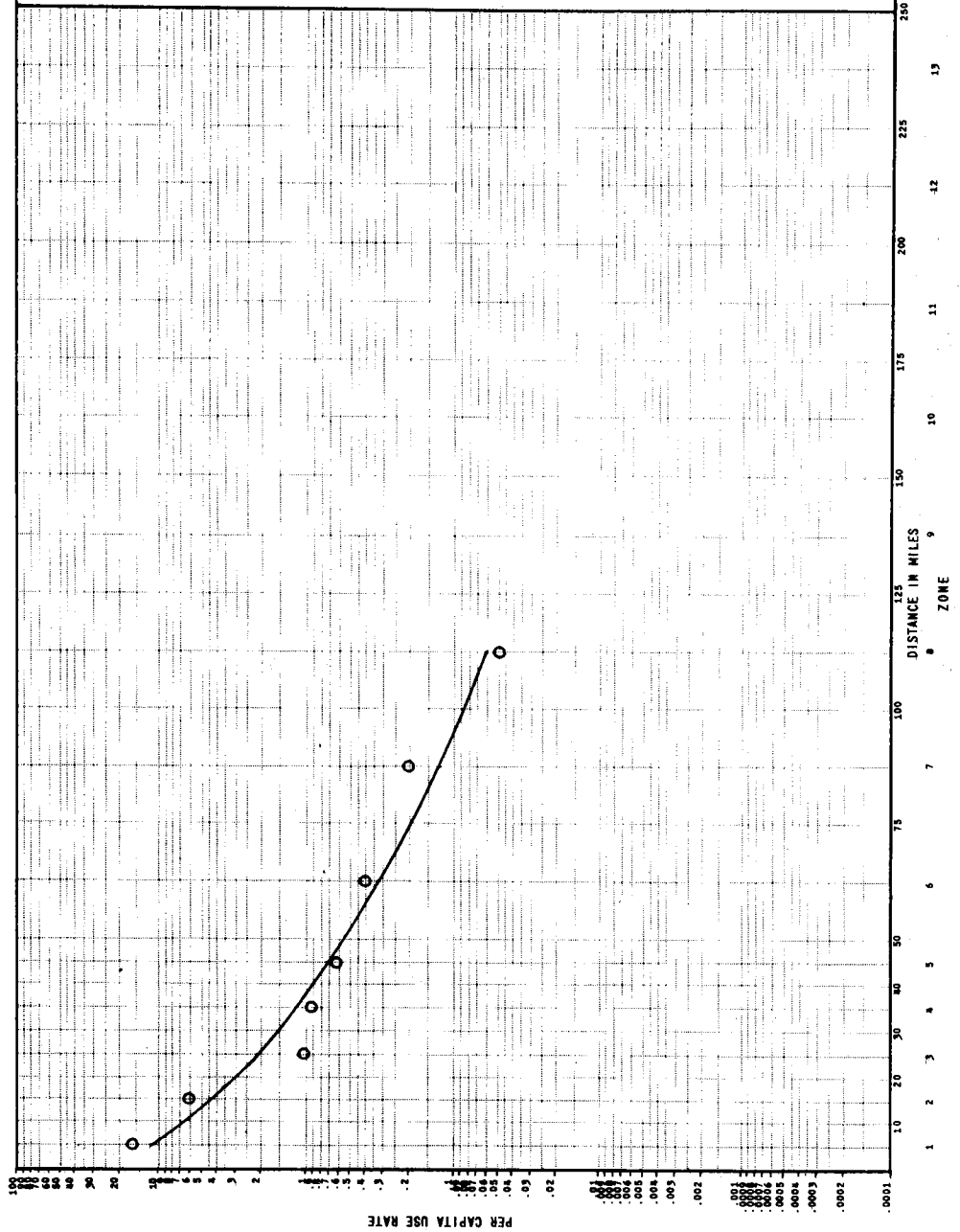
○ SURVEY ESTIMATE
— REGRESSION ESTIMATE

REGRESSION EQUATION:
 $Y = \text{Exp}(3.938865 - .636811 X^{.5})$

$R^2 = .90$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 12.3655 | 5,300 |
| 2 | 4.3601 | 17,400 |
| 3 | 2.1272 | 13,600 |
| 4 | 1.1870 | 31,800 |
| 5 | .7168 | 57,400 |
| 6 | .3343 | 381,900 |
| 7 | .1329 | 302,300 |
| 8 | .0599 | 1,009,400 |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/REGRESSION ESTIMATE
2/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT

RECREATION USE

PER CAPITA USE RATES
1966 - 1969

DISTRICT: FORT WORTH
PROJECT: GARZA-LITTLE ELM

LEGEND

O SURVEY ESTIMATE

— REGRESSION ESTIMATE

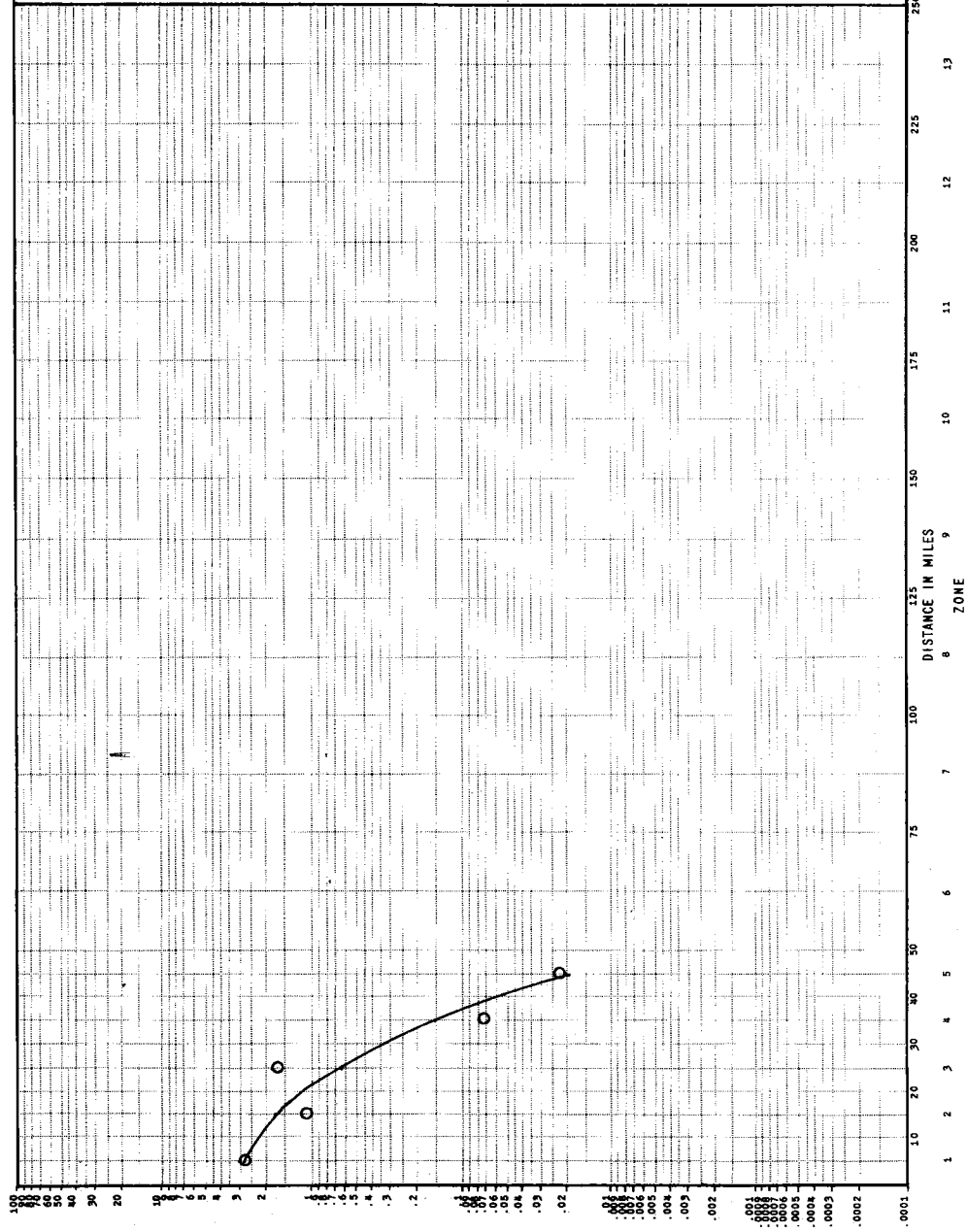
REGRESSION EQUATION:
 $Y = \text{Exp}(1.123474 - .002488 X^2)$

$R^2 = .72$

| ZONE | PER CAPITA 1/ USE RATE | ZONAL 2/ POPULATION |
|------|---------------------------|------------------------|
| 1 | 2.8900 | 82,200 |
| 2 | 1.7567 | 375,900 |
| 3 | .6491 | 658,700 |
| 4 | .1458 | 553,200 |
| 5 | .0199 | 268,600 |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/REGRESSION ESTIMATE

2/ESTIMATED 1965 POPULATION



PER CAPITA USE RATE

B-8

PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1969

DISTRICT: FORT WORTH
PROJECT: GRAPEVINE

LEGEND

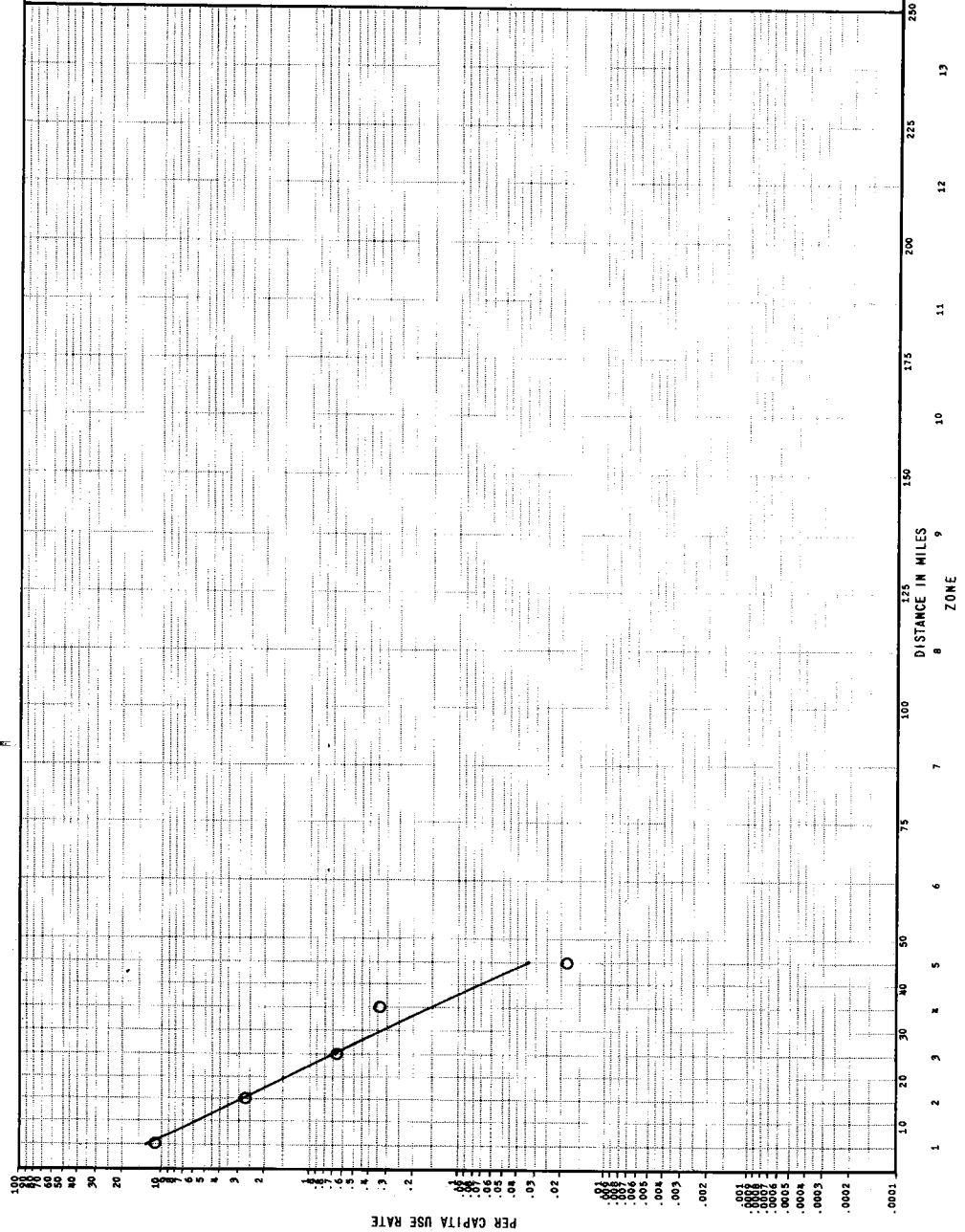
O SURVEY ESTIMATE
— REGRESSION ESTIMATE

REGRESSION EQUATION:
 $Y = \text{Exp}(3.321335 - .149200 X)$

$R^2 = .96$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 13.1356 | 40,500 |
| 2 | 2.9545 | 323,700 |
| 3 | .6645 | 1,091,500 |
| 4 | .1495 | 342,100 |
| 5 | .0336 | 99,300 |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/REGRESSION ESTIMATE
2/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT RECREATION USE

PER CAPITA USE RATES 1966 - 1969

DISTRICT: FORT WORTH
PROJECT: HORDS CREEK

LEGEND

○ SURVEY ESTIMATE

— REGRESSION ESTIMATE

REGRESSION EQUATION:

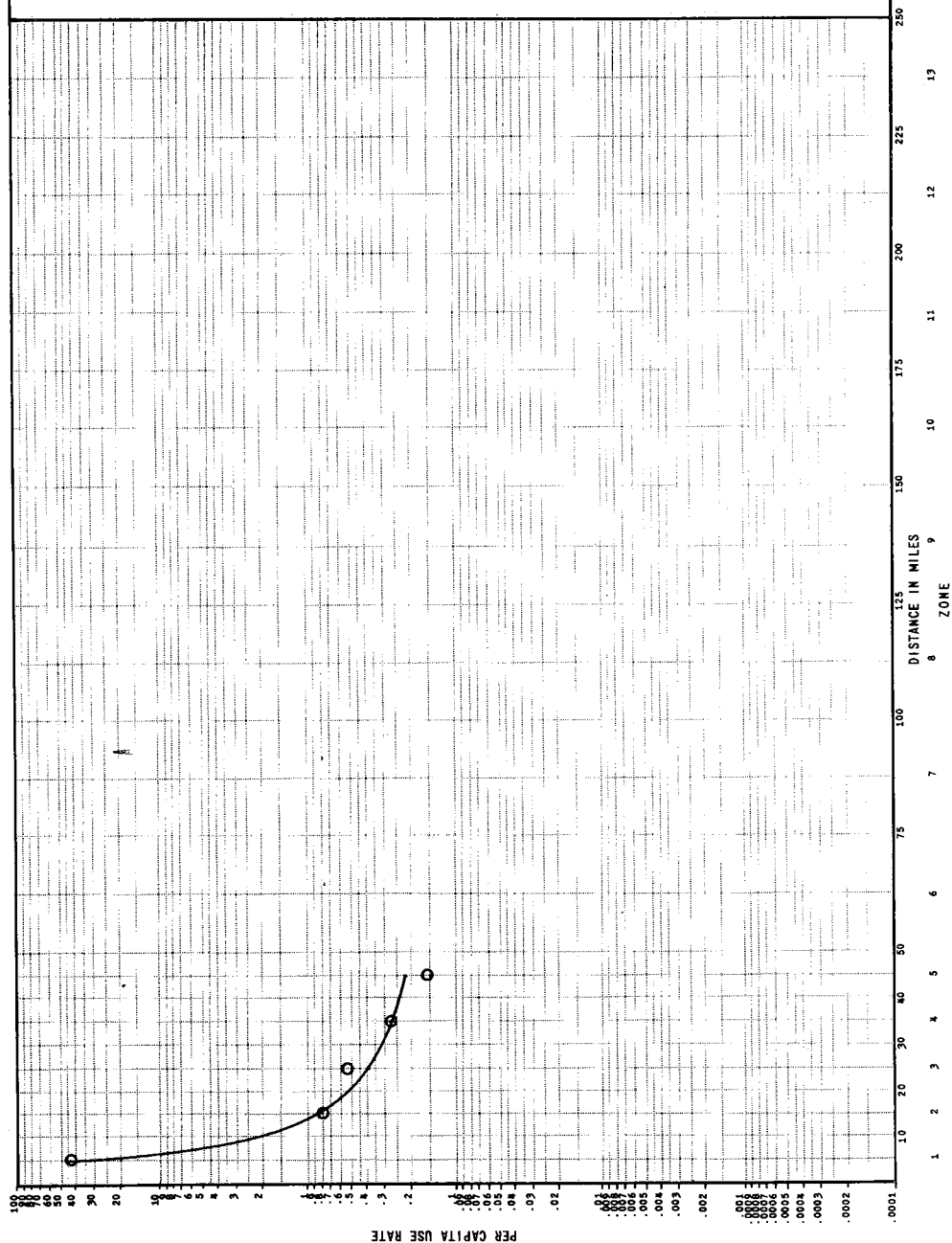
$$Y = \text{Exp} (-2.142315 + 29.692836 X^{-1})$$

$$R^2 = .99$$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 44.5339 | 1,800 |
| 2 | 8.498 | 8,700 |
| 3 | 3850 | 14,000 |
| 4 | 2742 | 13,400 |
| 5 | 2271 | 105,100 |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/ REGRESSION ESTIMATE

2/ ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1969

DISTRICT: FORT WORTH
PROJECT: LAVON

LEGEND

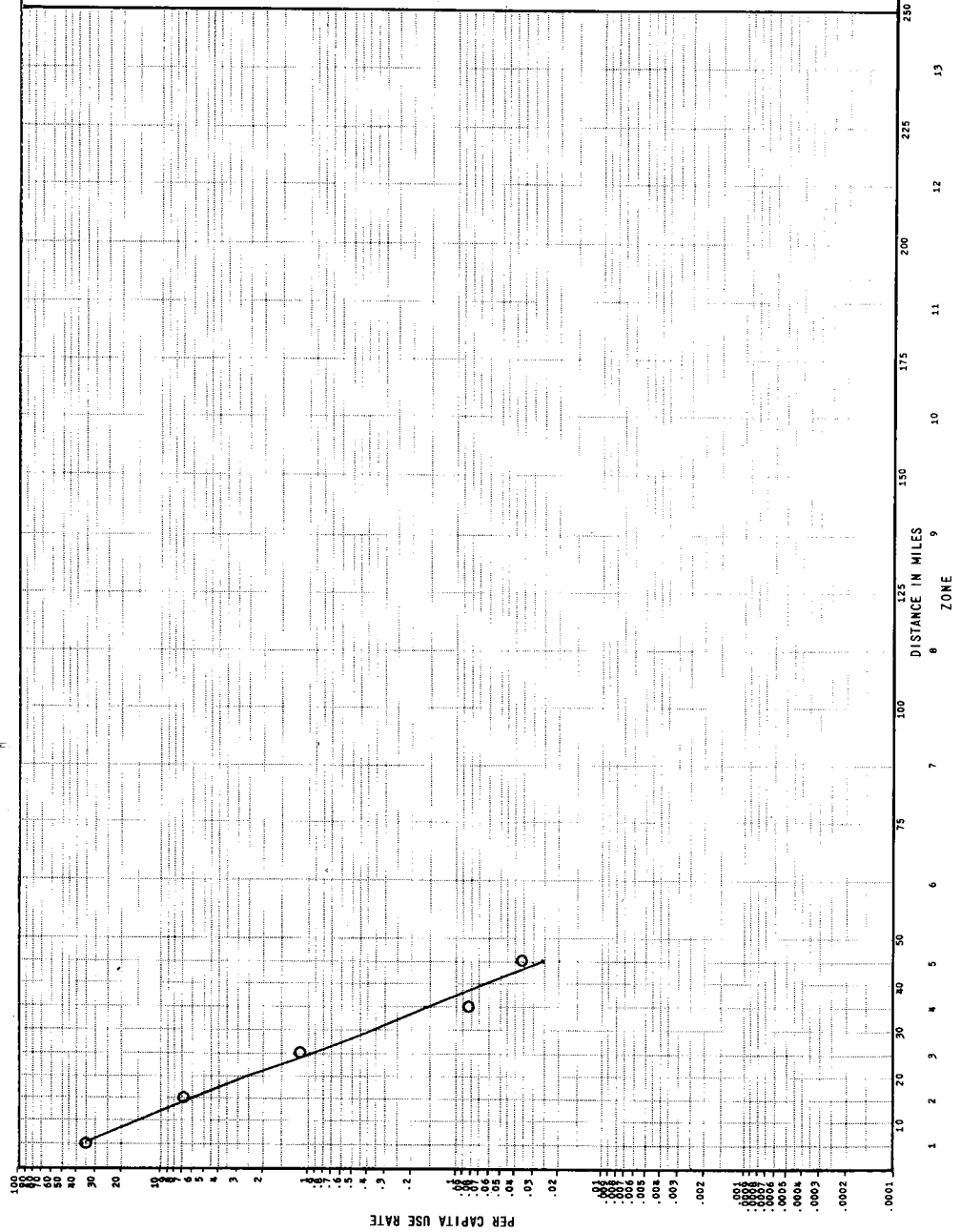
O SURVEY ESTIMATE
— REGRESSION ESTIMATE

REGRESSION EQUATION:
 $Y = \text{Exp}(4.503885 - .180650 X)$

$R^2 = .99$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 36.6103 | 18,100 |
| 2 | 6.0124 | 195,000 |
| 3 | .9874 | 393,100 |
| 4 | .1622 | 555,000 |
| 5 | .0266 | 268,700 |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

— REGRESSION ESTIMATE
Z/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1969

DISTRICT: FORT WORTH
PROJECT: NAVARRO MILLS

LEGEND

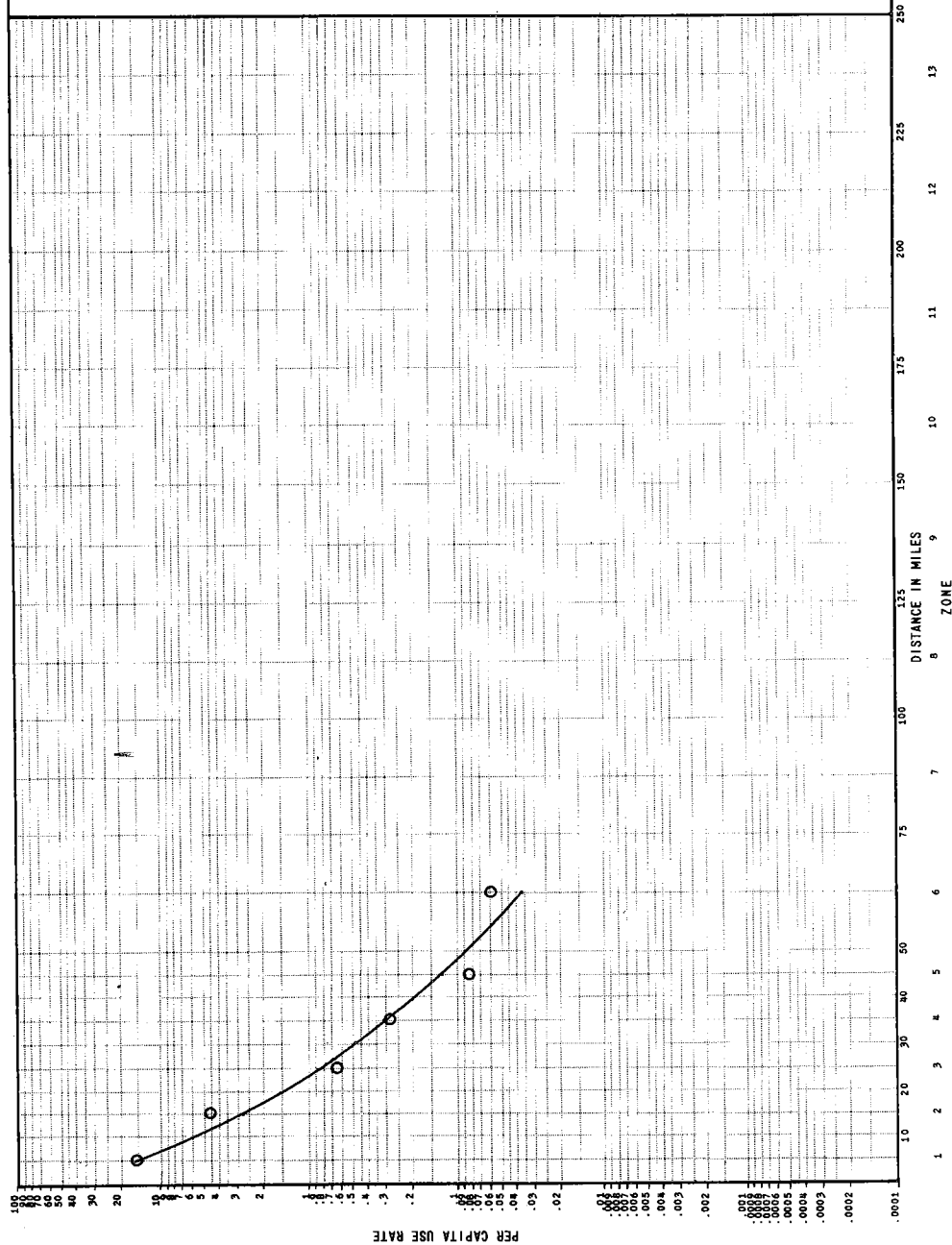
O SURVEY ESTIMATE
— REGRESSION ESTIMATE

REGRESSION EQUATION:
 $Y = \text{Exp}(5.163338 - 1.071805 X^{.5})$

$R^2 = .99$

| ZONE | PER CAPITA 1/ USE RATE | ZONAL 2/ POPULATION |
|------|---------------------------|------------------------|
| 1 | 15.9062 | 5,900 |
| 2 | 2.7518 | 37,800 |
| 3 | .8223 | 33,500 |
| 4 | .3080 | 181,700 |
| 5 | .1318 | 51,300 |
| 6 | .0365 | 1,008,500 |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/ REGRESSION ESTIMATE
2/ ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1969

DISTRICT: FORT WORTH
PROJECT: PROCTOR

LEGEND

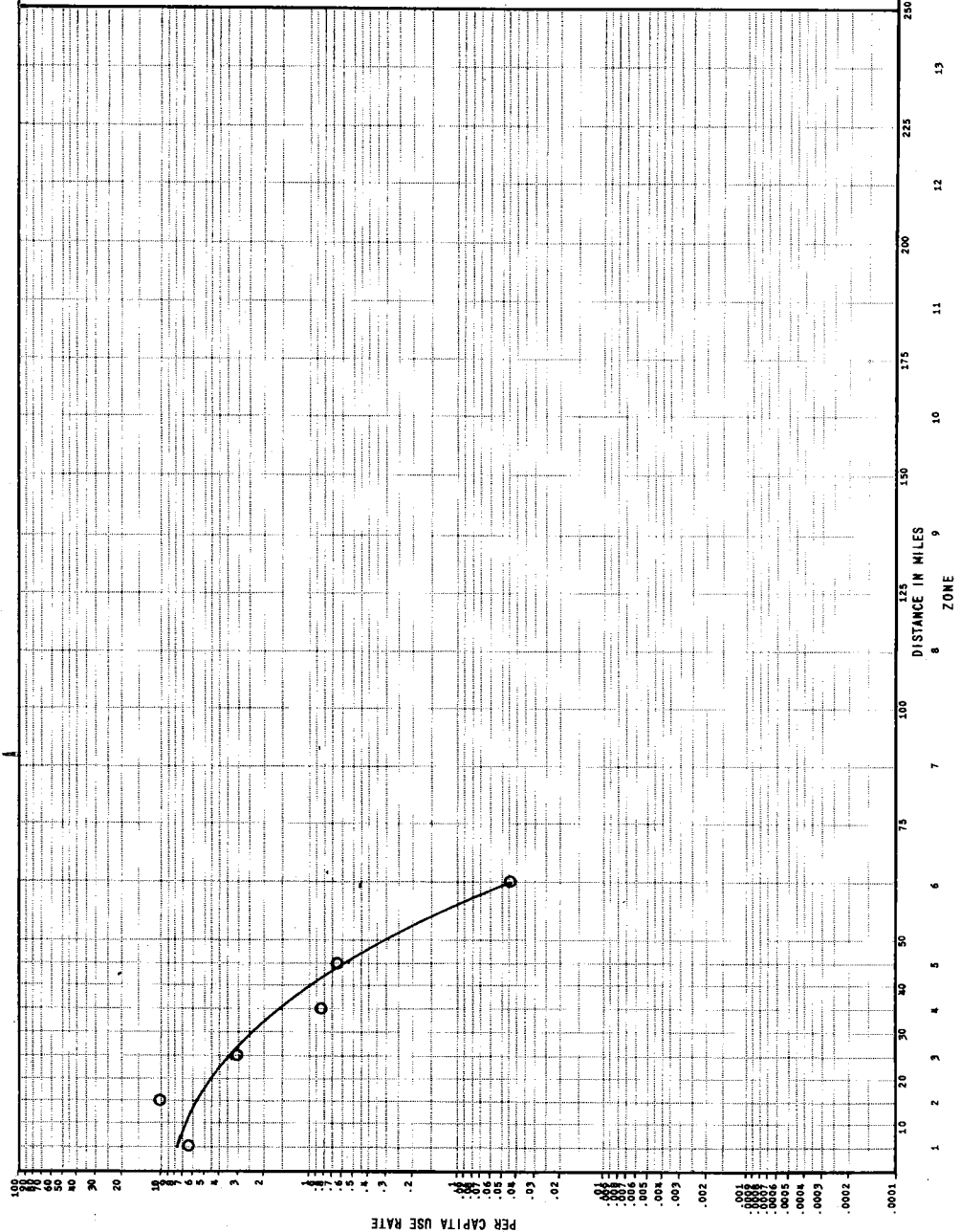
O SURVEY ESTIMATE
— REGRESSION ESTIMATE

REGRESSION EQUATION:
 $Y = \text{Exp}(2.066484 - .001334 X^2)$

$R^2 = .75$

| ZONE | PER CAPITA USE RATE | POPULATION |
|------|------------------------|------------|
| 1 | 7.6378 | 8,900 |
| 2 | 5.8479 | 9,600 |
| 3 | 3.4282 | 2,800 |
| 4 | 1.5388 | 37,800 |
| 5 | .5288 | 22,000 |
| 6 | .0429 | 151,400 |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/REGRESSION ESTIMATE
2/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1969

DISTRICT: FORT WORTH
PROJECT: SAN ANGELO

LEGEND

○ SURVEY ESTIMATE

— REGRESSION ESTIMATE

REGRESSION EQUATION:

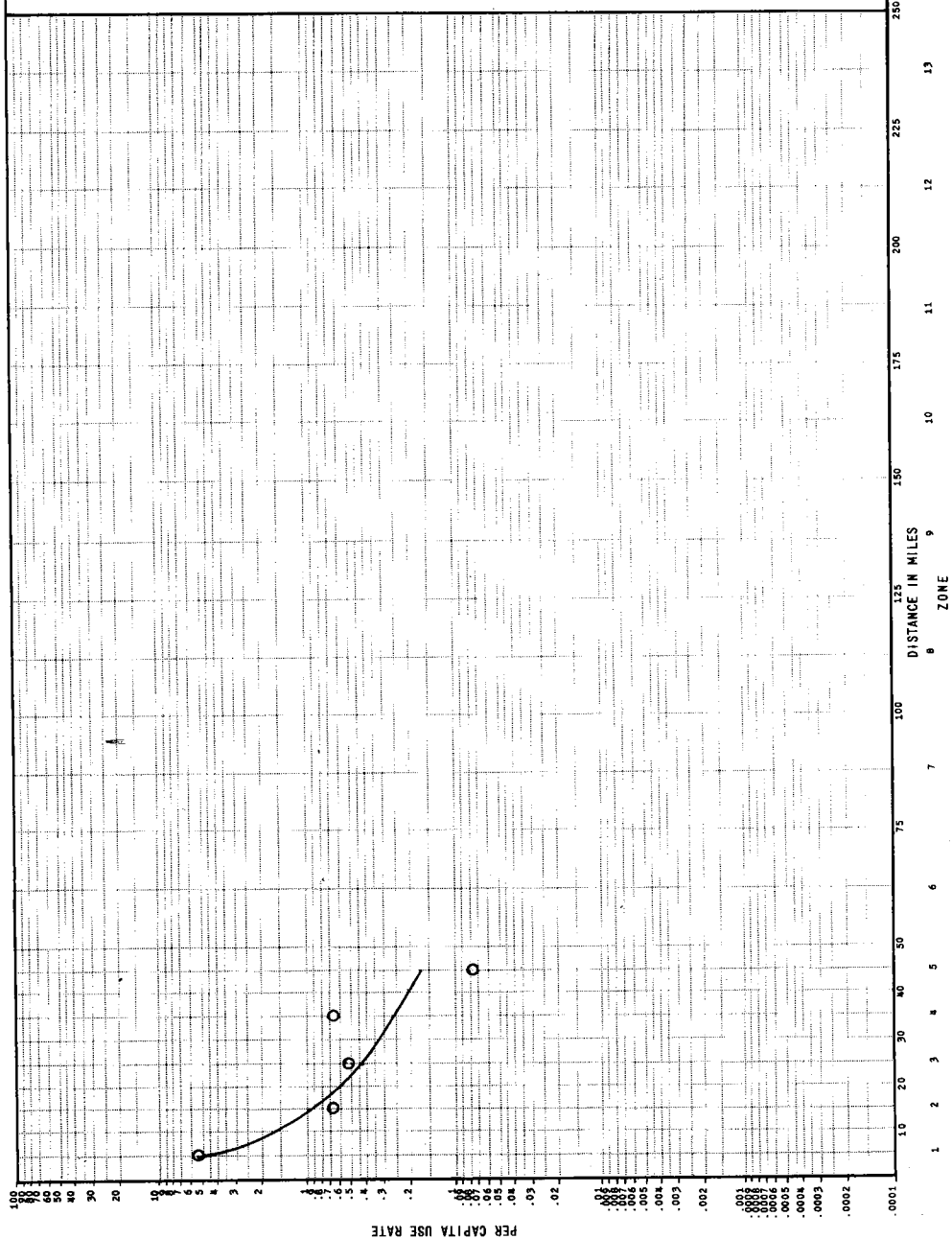
$$Y = \text{Exp}(4.171426 - 1.555152 \text{ LN} X)$$

R² = .99

| ZONE | PER CAPITA 1/ USE RATE | ZONAL 2/ POPULATION |
|------|---------------------------|------------------------|
| 1 | 5.3042 | 65,700 |
| 2 | .9608 | 3,400 |
| 3 | .4341 | 3,500 |
| 4 | .2573 | 4,200 |
| 5 | .1740 | 12,100 |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/ REGRESSION ESTIMATE

2/ ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1969

DISTRICT: FORT WORTH
PROJECT: WHITNEY

LEGEND

O SURVEY ESTIMATE

— REGRESSION ESTIMATE

REGRESSION EQUATION:

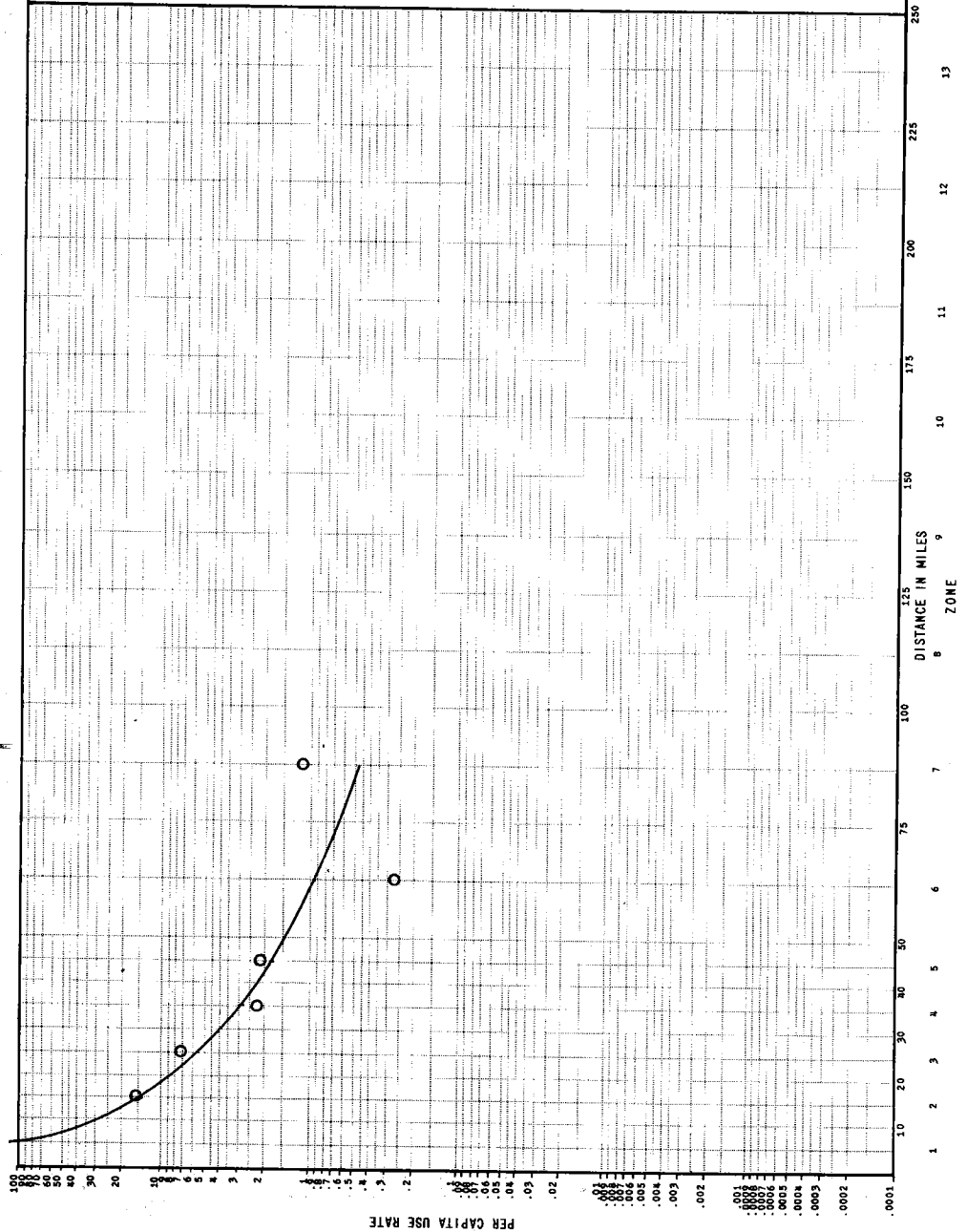
$$Y = \text{Exp}(7.899451 - 1.929206 \text{ LNX})$$

$$R^2 = .99$$

| ZONE | PER CAPITA 1/ USE RATE | ZONAL 2/ POPULATION |
|------|---------------------------|------------------------|
| 1 | 120.8455 | 3,900 |
| 2 | 14.5133 | 27,100 |
| 3 | 5.4172 | 47,400 |
| 4 | 2.8305 | 154,700 |
| 5 | 1.7430 | 58,700 |
| 6 | .9248 | 1,940,600 |
| 7 | .4832 | 471,800 |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/ REGRESSION ESTIMATE

2/ ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION
ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1969

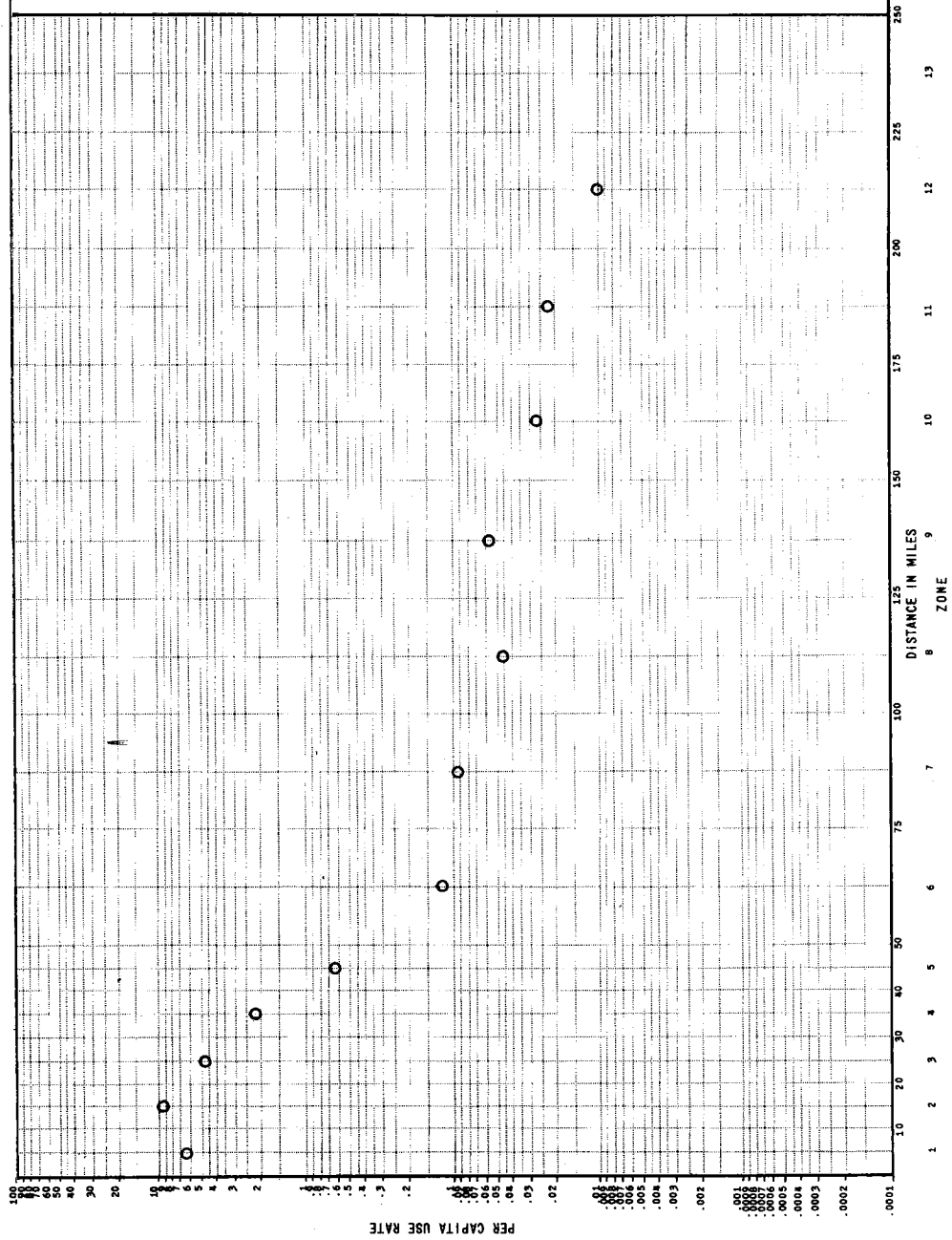
DISTRICT: LITTLE ROCK
PROJECT: BEAVER

LEGEND
O SURVEY ESTIMATE
— REGRESSION ESTIMATE
REGRESSION EQUATION:

R² = .

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | | 12,900 |
| 2 | | 43,700 |
| 3 | | 45,200 |
| 4 | | 34,800 |
| 5 | | 42,000 |
| 6 | | 210,000 |
| 7 | | 452,400 |
| 8 | | 447,900 |
| 9 | | 534,100 |
| 10 | | 405,900 |
| 11 | | 540,700 |
| 12 | | 1,445,600 |
| 13 | | |

1/REGRESSION ESTIMATE
2/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1969

DISTRICT: LITTLE ROCK
PROJECT: BULL SHOALS

LEGEND

O SURVEY ESTIMATE

— REGRESSION ESTIMATE

REGRESSION EQUATION:

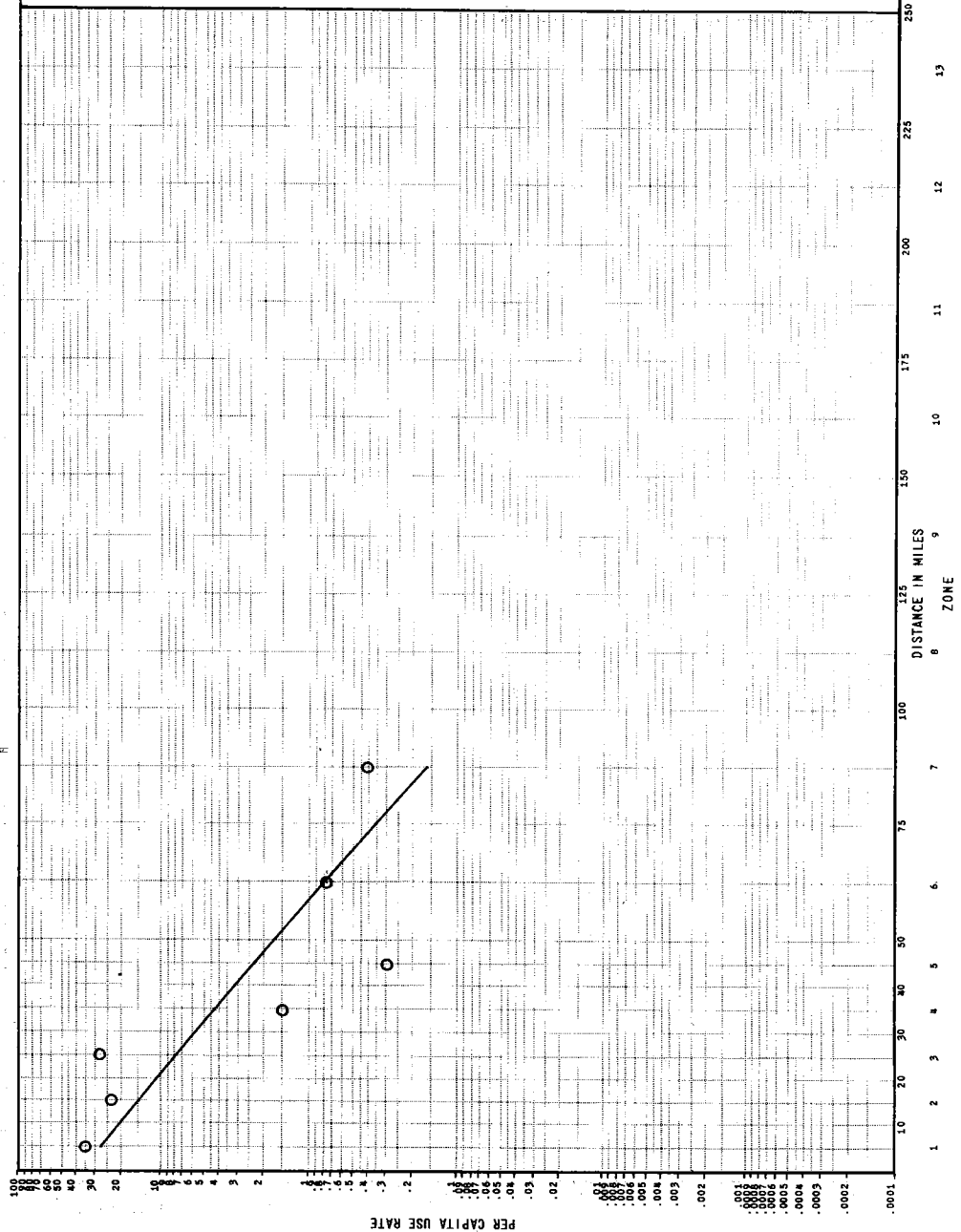
$$Y = \text{Exp}(3.626955 - .062347 X)$$

$$R^2 = .60$$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 27.5284 | 17,500 |
| 2 | 14.7573 | 10,500 |
| 3 | 7.9111 | 19,100 |
| 4 | 4.2410 | 76,700 |
| 5 | 2.2735 | 130,500 |
| 6 | .7636 | 154,200 |
| 7 | .1607 | 302,700 |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

— REGRESSION ESTIMATE

— ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT

RECREATION USE

PER CAPITA USE RATES
1966 - 1969

DISTRICT: LITTLE ROCK
PROJECT: GREENS FERRY

LEGEND

○ SURVEY ESTIMATE
— REGRESSION ESTIMATE

REGRESSION EQUATION:

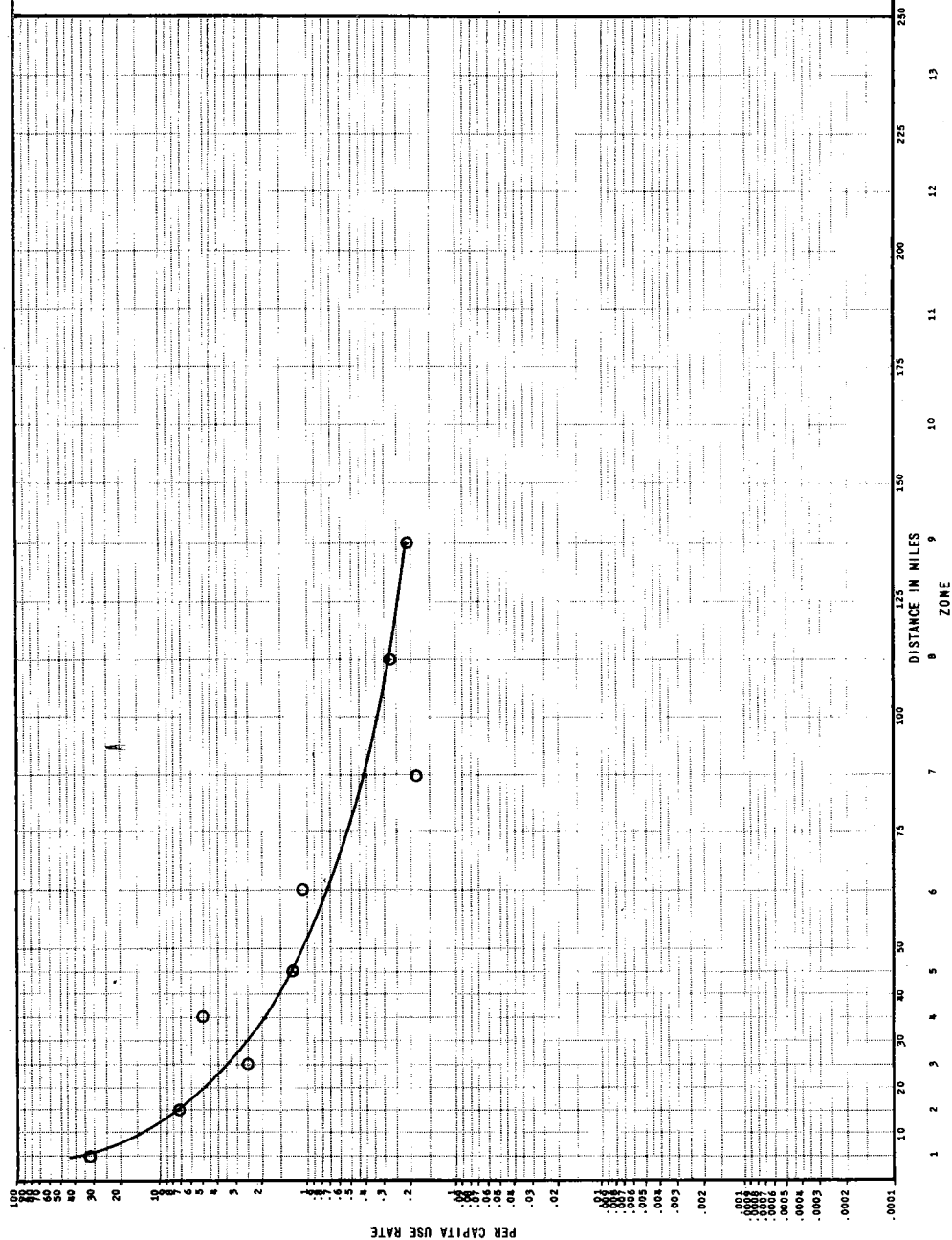
$$Y = \text{Exp}(6.413047 - 1.621003 \text{ LN} X)$$

$$R^2 = .88$$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 44.8868 | 7,900 |
| 2 | 7.5632 | 6,600 |
| 3 | 3.3044 | 18,500 |
| 4 | 1.9152 | 32,400 |
| 5 | 1.2744 | 48,800 |
| 6 | .7483 | 283,900 |
| 7 | .4337 | 338,050 |
| 8 | .2886 | 375,900 |
| 9 | .2085 | 629,900 |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/REGRESSION ESTIMATE

2/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1969

DISTRICT: LITTLE ROCK
PROJECT: NORFORK

LEGEND

O SURVEY ESTIMATE

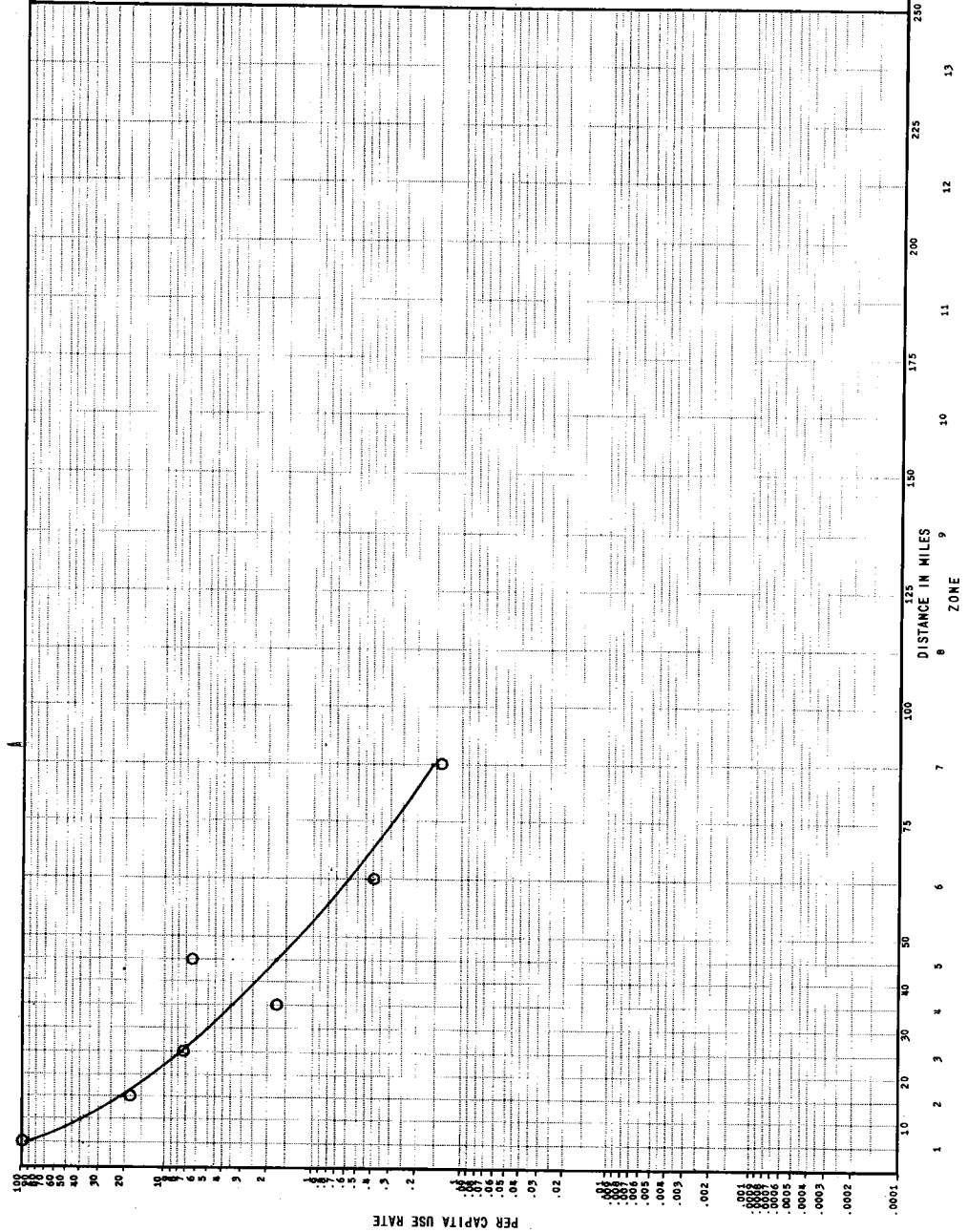
— REGRESSION ESTIMATE

REGRESSION EQUATION:
 $Y = \text{Exp } 6.517155 - .890364 X^{-.5}$

$R^2 = .98$

| ZONE | PER CAPITA 1/ USE RATE | ZONAL 2/ POPULATION |
|------|---------------------------|------------------------|
| 1 | 92.4105 | 7,500 |
| 2 | 21.5159 | 8,700 |
| 3 | 7.8880 | 9,400 |
| 4 | 3.4893 | 15,500 |
| 5 | 1.7236 | 17,600 |
| 6 | .5935 | 91,500 |
| 7 | .1635 | 144,800 |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/ REGRESSION ESTIMATE
2/ ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT

RECREATION USE

PER CAPITA USE RATES
1966 - 1969

DISTRICT: LITTLE ROCK

PROJECT: TABLE ROCK

LEGEND

○ SURVEY ESTIMATE

— REGRESSION ESTIMATE

REGRESSION EQUATION:

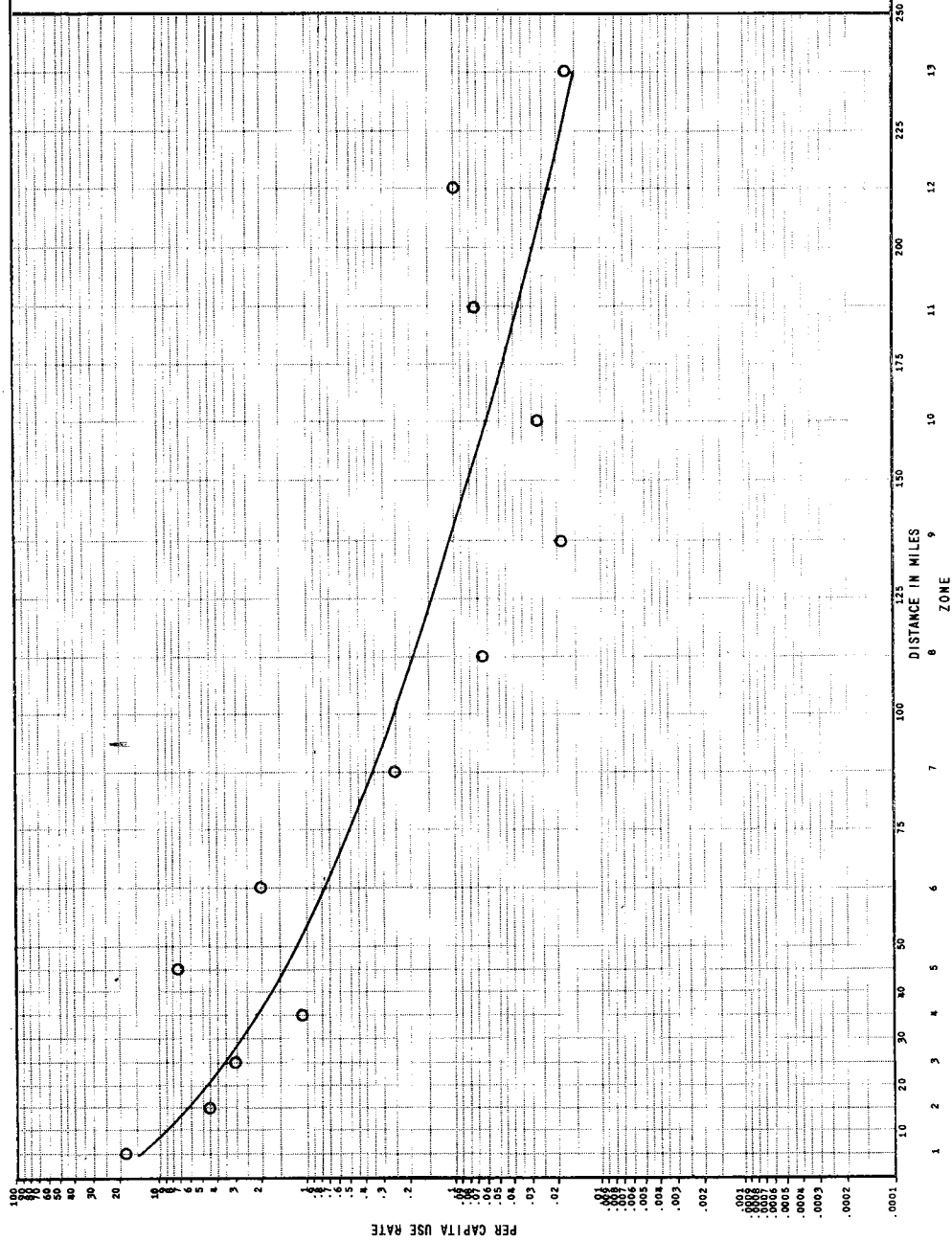
$$Y = \text{Exp} \{ 3.868056 - .521759 X^{.5} \}$$

$$R^2 = .83$$

| ZONE | PER CAPITA 1/ USE RATE | ZONAL 2/ POPULATION |
|------|---------------------------|------------------------|
| 1 | 14.9001 | 14,900 |
| 2 | 6.3427 | 24,900 |
| 3 | 3.5229 | 57,400 |
| 4 | 2.1843 | 149,900 |
| 5 | 1.4449 | 90,000 |
| 6 | .7736 | 268,900 |
| 7 | .3633 | 298,300 |
| 8 | .1890 | 411,900 |
| 9 | .1054 | 947,900 |
| 10 | .0619 | 745,500 |
| 11 | .0378 | 1,025,800 |
| 12 | .0239 | 2,396,500 |
| 13 | .0155 | 2,767,700 |

1/ REGRESSION ESTIMATE

2/ ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1969

DISTRICT: NASHVILLE
PROJECT: CENTER HILL

LEGEND

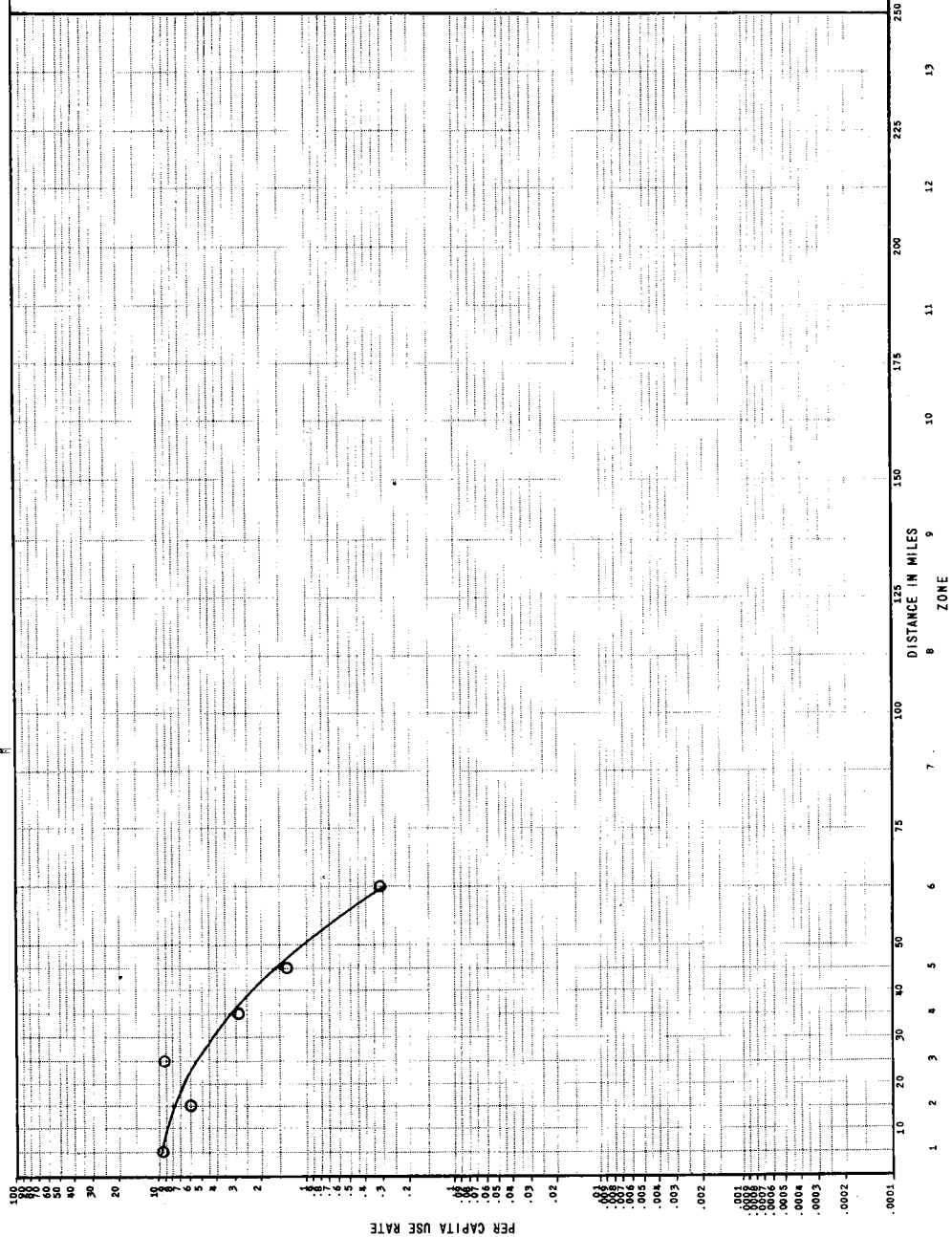
O SURVEY ESTIMATE
— REGRESSION ESTIMATE

REGRESSION EQUATION:
 $Y = \text{Exp}(2.283256 - .000894 X^2)$

$R^2 = .78$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|---------------------|------------------|
| 1 | 9.5917 | 16,690 |
| 2 | 8.0207 | 45,980 |
| 3 | 5.6085 | 46,920 |
| 4 | 3.2195 | 61,120 |
| 5 | 1.5035 | 108,960 |
| 6 | .2982 | 881,700 |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

— REGRESSION ESTIMATE
Z/ ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1969

DISTRICT: NASHVILLE
PROJECT: CHEATHAM

LEGEND

- O SURVEY ESTIMATE
- REGRESSION ESTIMATE

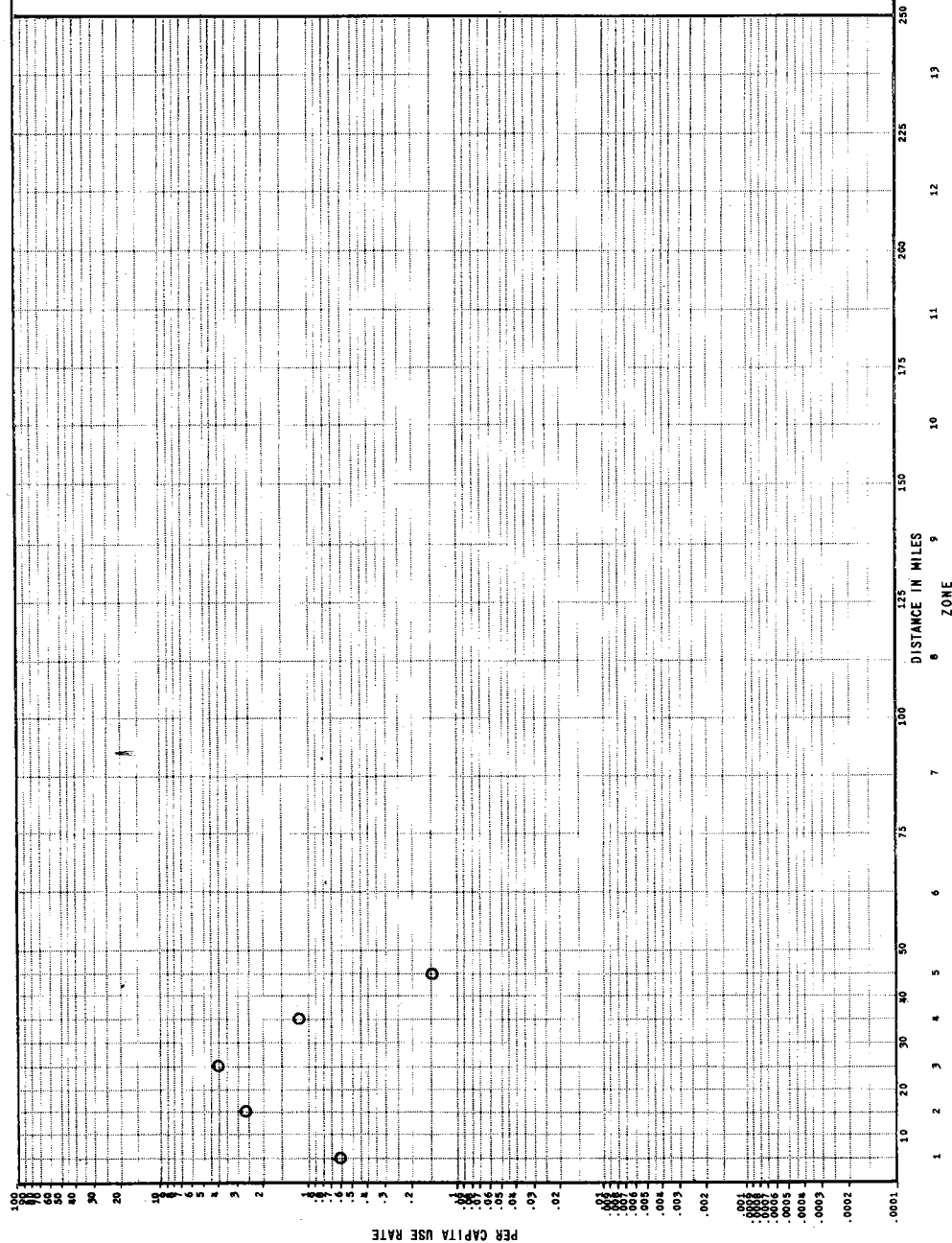
REGRESSION EQUATION:

$R^2 = .$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | | 401,480 |
| 2 | | 63,130 |
| 3 | | 107,360 |
| 4 | | 105,260 |
| 5 | | 103,230 |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/REGRESSION ESTIMATE

2/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT RECREATION USE

PER CAPITA USE RATES 1966 - 1969

DISTRICT: NASHVILLE
PROJECT: DALE HOLLOW

LEGEND

O SURVEY ESTIMATE

— REGRESSION ESTIMATE

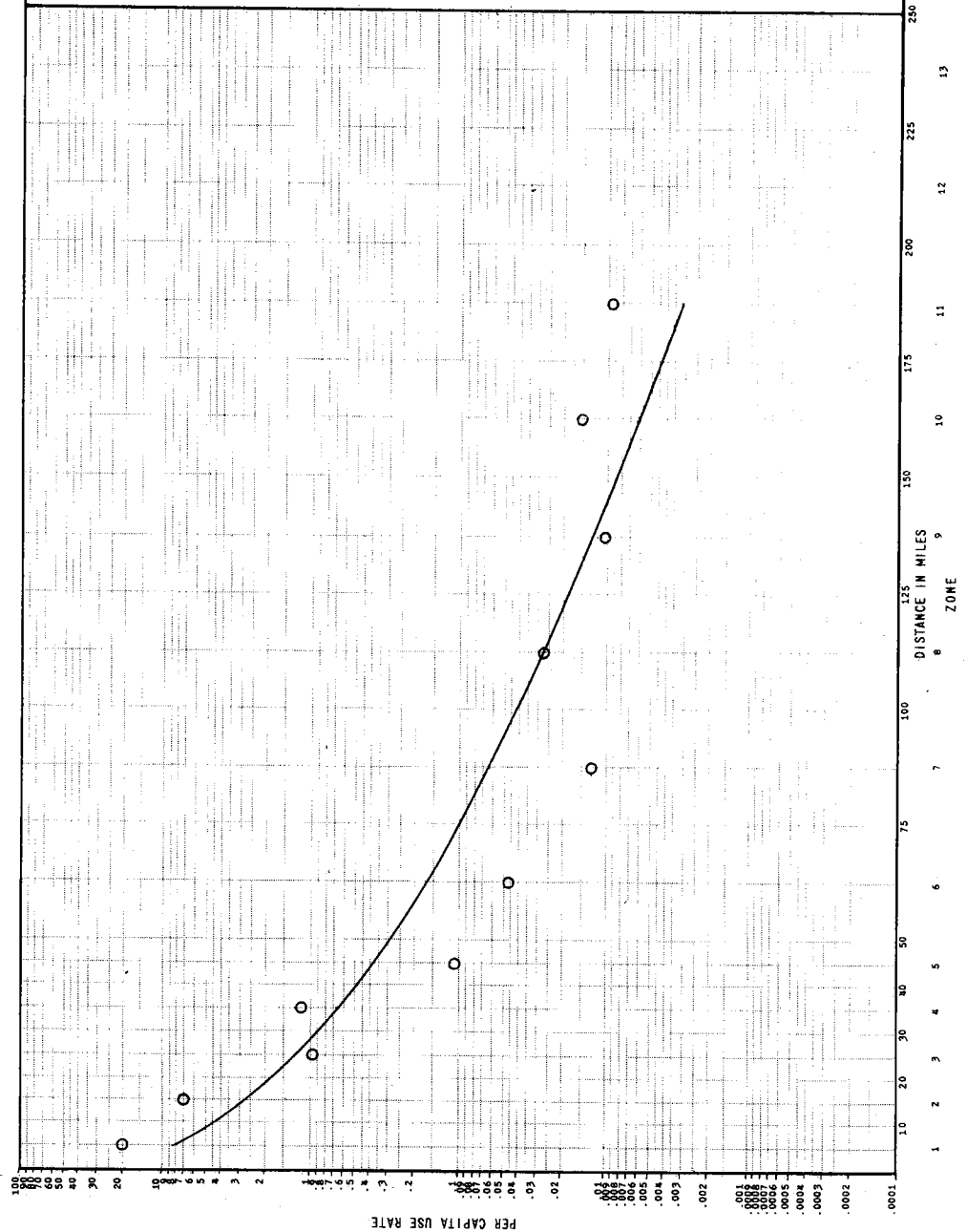
$$Y = \text{Exp} [3.656742 - .688321 X^{.5}]$$

$$R^2 = .57$$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 8.3113 | 22,150 |
| 2 | 2.6937 | 28,600 |
| 3 | 1.2401 | 52,880 |
| 4 | .6601 | 49,470 |
| 5 | .3827 | 84,080 |
| 6 | .1679 | 345,780 |
| 7 | .0620 | 1,062,700 |
| 8 | .0262 | 1,232,900 |
| 9 | .0122 | 1,515,780 |
| 10 | .0060 | 1,122,560 |
| 11 | .0032 | 1,819,540 |
| 12 | | |
| 13 | | |

— REGRESSION ESTIMATE

— ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT

RECREATION USE

PER CAPITA USE RATES
1966 - 1969

DISTRICT: NASHVILLE
PROJECT: LAKE CUMBERLAND

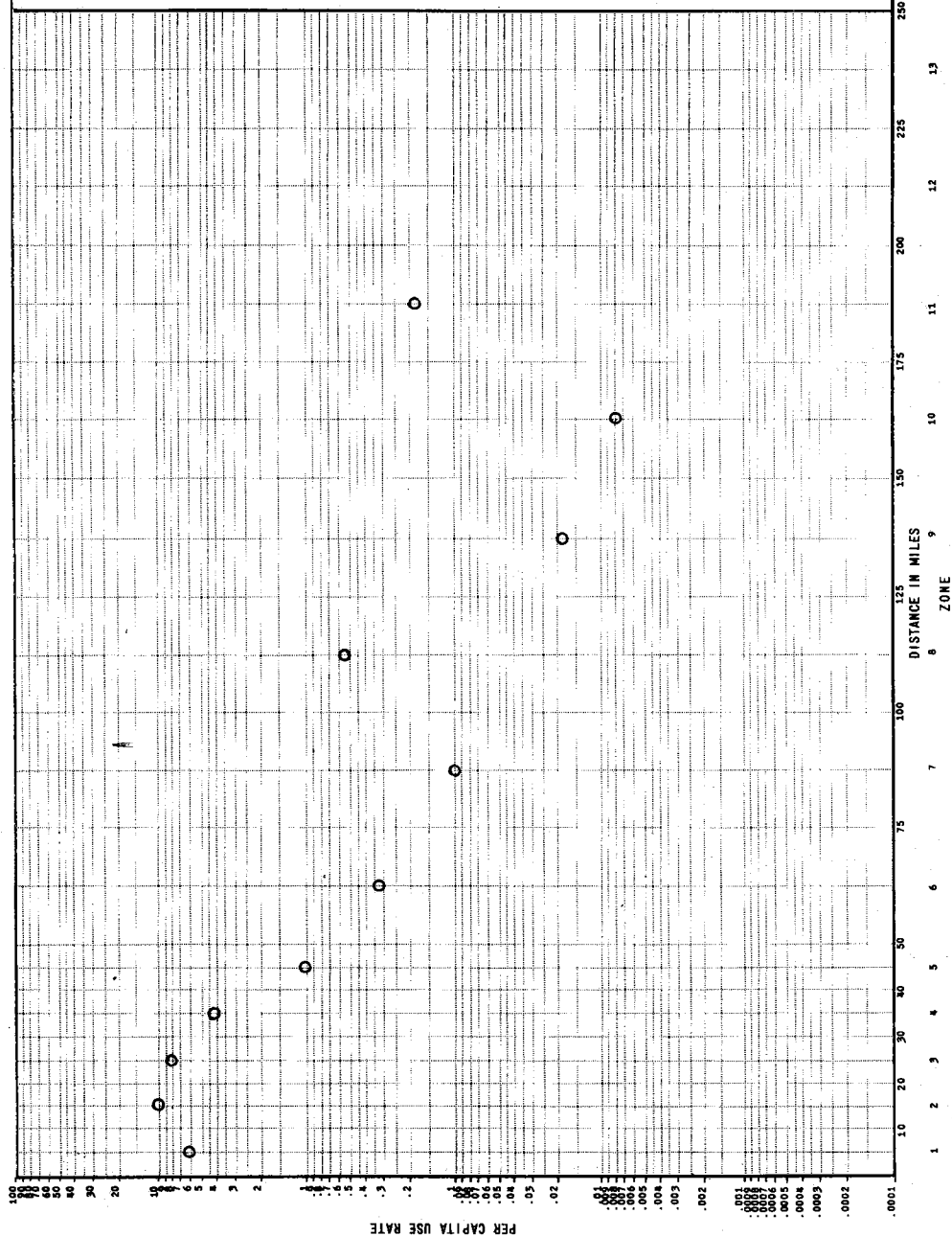
LEGEND

- SURVEY ESTIMATE
— REGRESSION ESTIMATE
REGRESSION EQUATION:

R² = .

| ZONE | PER CAPITA USE RATE | POPULATION |
|------|---------------------|------------|
| 1 | | 55,000 |
| 2 | | 56,950 |
| 3 | | 77,490 |
| 4 | | 75,820 |
| 5 | | 120,490 |
| 6 | | 474,600 |
| 7 | | 988,780 |
| 8 | | 1,418,240 |
| 9 | | 1,707,440 |
| 10 | | 2,696,680 |
| 11 | | 1,999,830 |
| 12 | | |
| 13 | | |

1/ REGRESSION ESTIMATE
2/ ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1969

DISTRICT: NASHVILLE
PROJECT: OLD HICKORY

LEGEND

O SURVEY ESTIMATE

— REGRESSION ESTIMATE

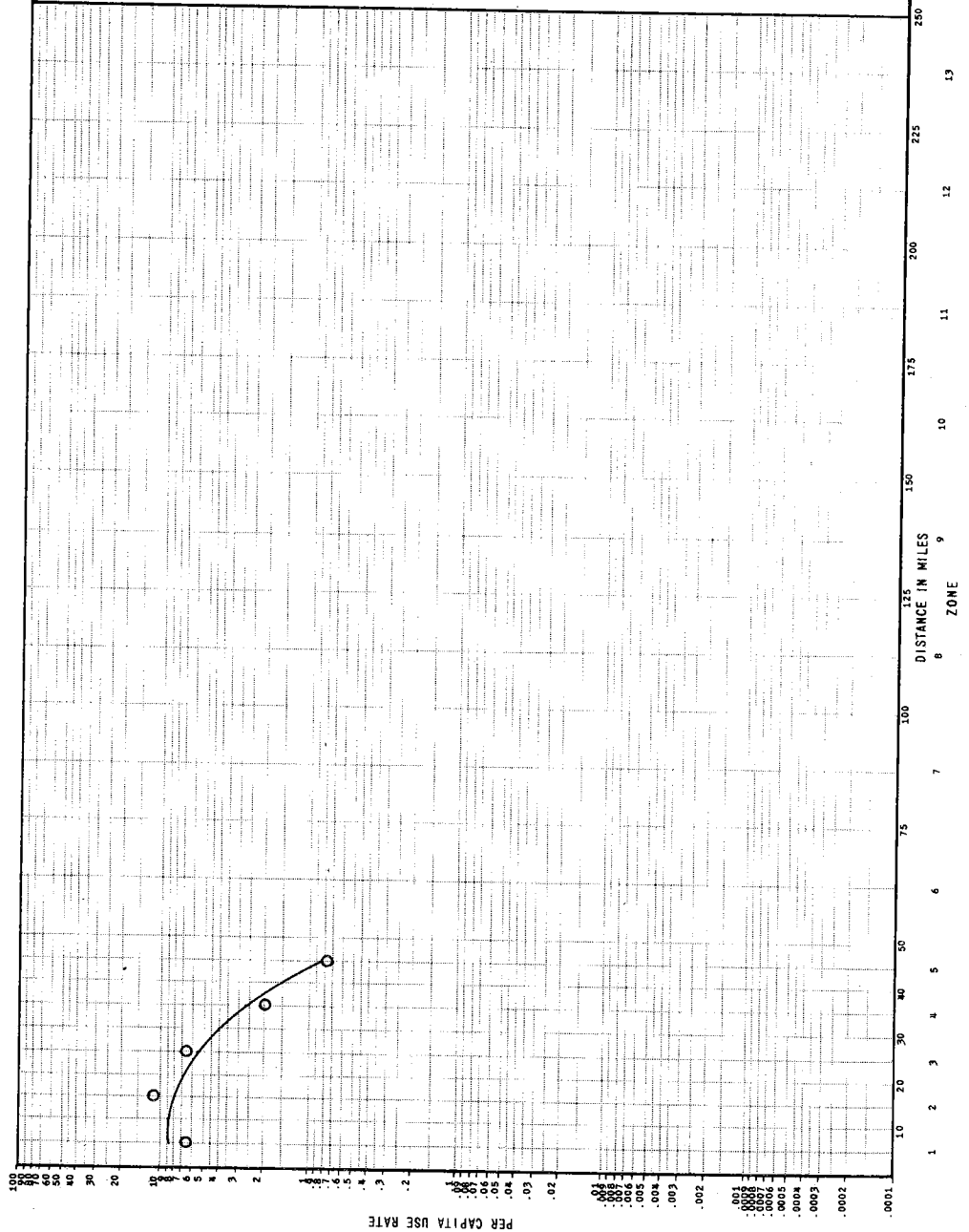
REGRESSION EQUATION:
 $Y = \text{Exp}(2.158265 - .000027 X^3)$

$R^2 = .81$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 8.6264 | 218,700 |
| 2 | 7.8890 | 177,250 |
| 3 | 5.6329 | 178,970 |
| 4 | 2.6626 | 113,170 |
| 5 | .7065 | 119,950 |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/REGRESSION ESTIMATE

2/ESTIMATED 1965 POPULATION



PER CAPITA USE RATE

PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1969

DISTRICT: PORTLAND
PROJECT: COTTAGE GROVE

LEGEND

O SURVEY ESTIMATE
— REGRESSION ESTIMATE

REGRESSION EQUATION:

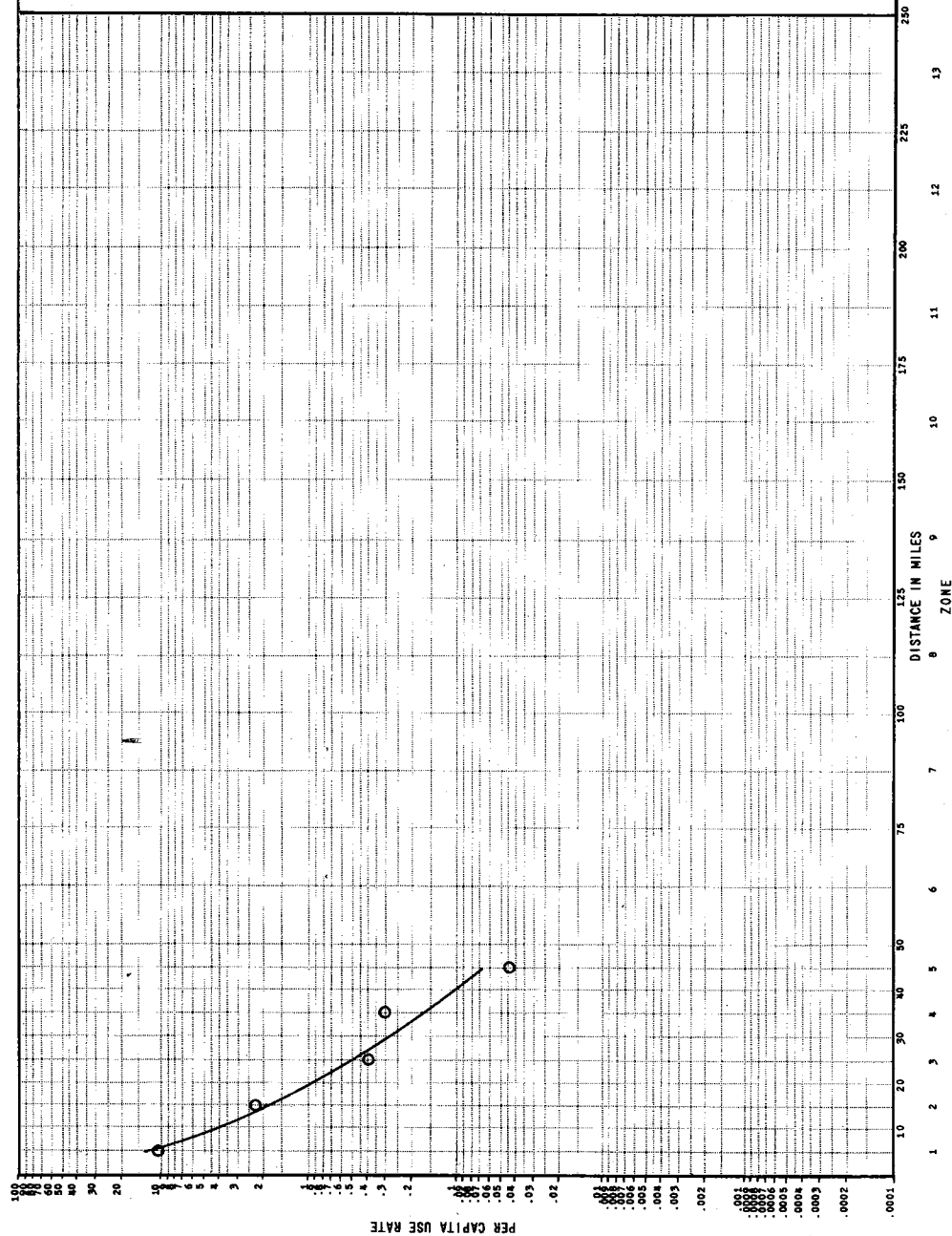
$$Y = \text{Exp}(5.187392 - 1.173383 X^{.5})$$

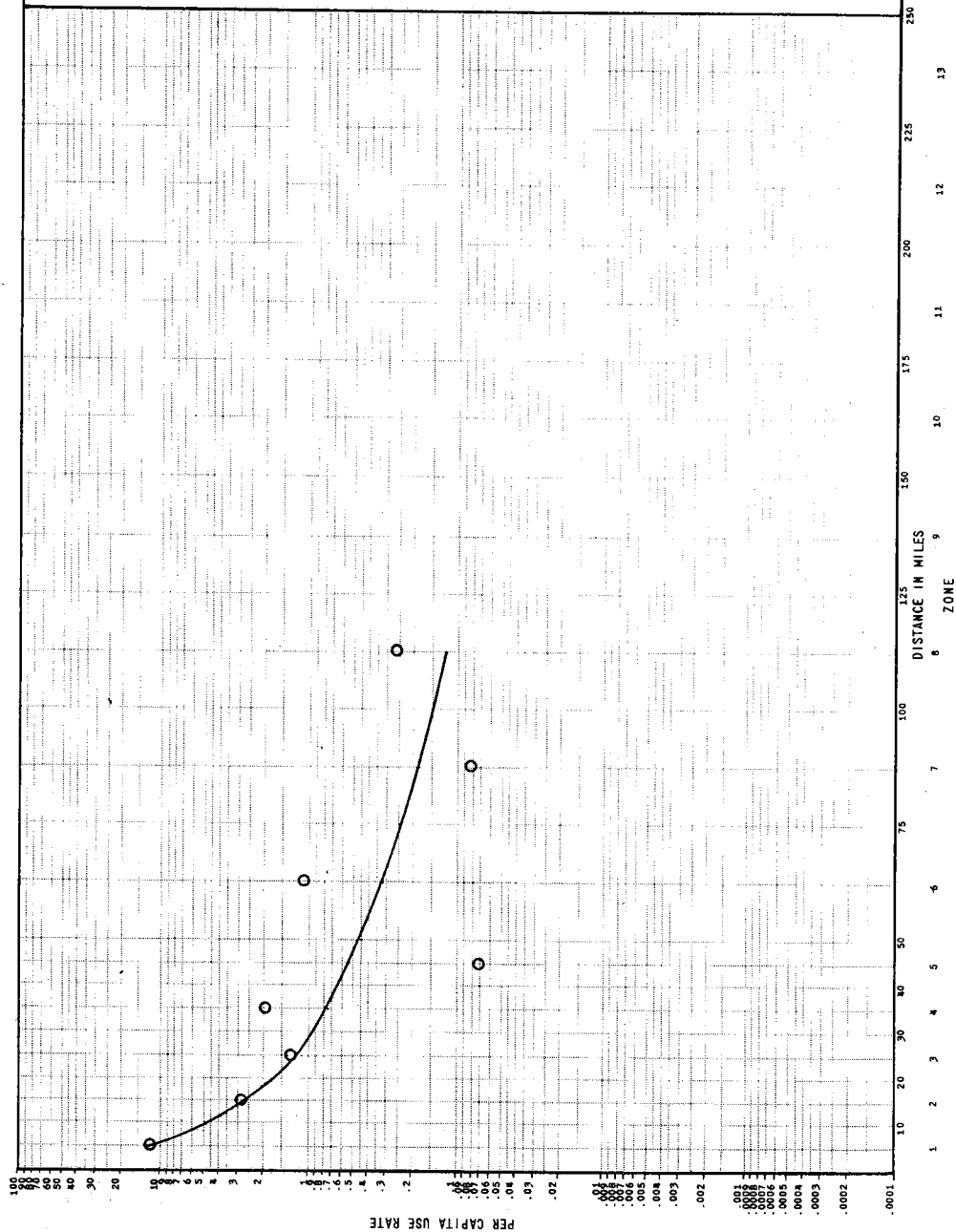
$$R^2 = .97$$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 12.9828 | 10,000 |
| 2 | 1.9020 | 8,000 |
| 3 | .5069 | 122,000 |
| 4 | .1731 | 13,000 |
| 5 | .0683 | 72,000 |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/ REGRESSION ESTIMATE

2/ ESTIMATED 1965 POPULATION





PLAN FORMULATION STUDIES - RECREATION
ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1969

DISTRICT: PORTLAND
PROJECT: DETROIT

LEGEND
O SURVEY ESTIMATE
— REGRESSION ESTIMATE

REGRESSION EQUATION:
 $Y = \text{Exp}(4.937934 - 1.471145 \text{ LNX})$
 $R^2 = .98$

| ZONE | PER CAPITA $\frac{1}{\text{USE RATE}}$ | ZONAL $\frac{2}{\text{POPULATION}}$ |
|------|--|-------------------------------------|
| 1 | 13.0687 | 2,000 |
| 2 | 2.5961 | 6,000 |
| 3 | 1.2245 | 6,000 |
| 4 | .7464 | 10,000 |
| 5 | .5158 | 106,000 |
| 6 | .3181 | 190,000 |
| 7 | .1939 | 700,000 |
| 8 | .1340 | 330,000 |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

$\frac{1}{\text{—}}$ REGRESSION ESTIMATE
 $\frac{2}{\text{—}}$ ESTIMATED 1965 POPULATION

PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT

RECREATION USE

PER CAPITA USE RATES 1966 - 1969

DISTRICT: PORTLAND

PROJECT: DORENA

LEGEND

O SURVEY ESTIMATE

— REGRESSION ESTIMATE

REGRESSION EQUATION:

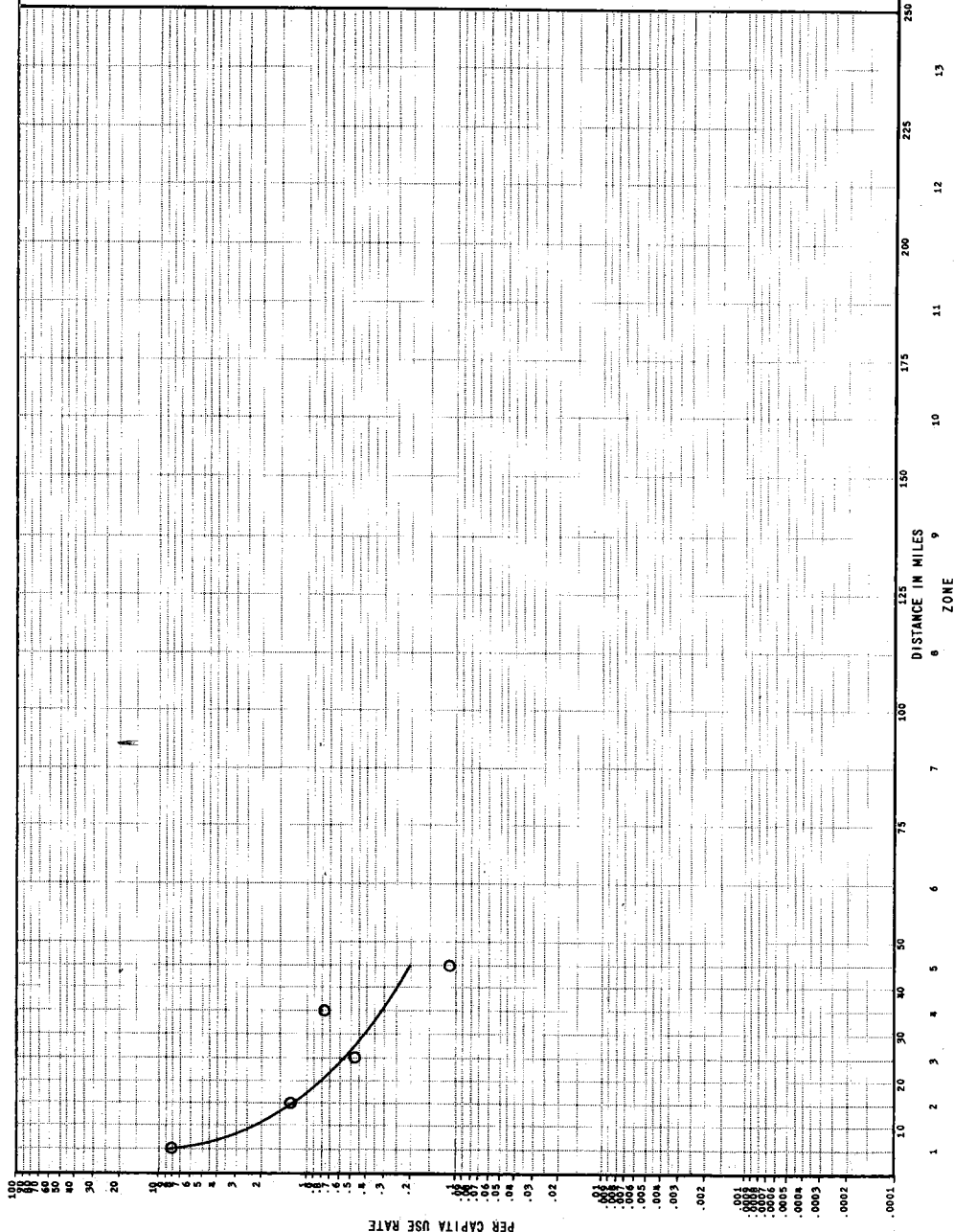
$$Y = \text{Exp}(4.888707 - 1.699472 \text{ LNX})$$

R² = .99

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 8.6151 | 8,000 |
| 2 | 1.3317 | 9,000 |
| 3 | .5590 | 120,000 |
| 4 | .3156 | 8,000 |
| 5 | .2059 | 51,000 |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/ REGRESSION ESTIMATE

2/ ESTIMATED 1965 POPULATION



PER CAPITA USE RATE

PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT RECREATION USE

PER CAPITA USE RATES 1966 - 1969

DISTRICT: PORTLAND
PROJECT: FERN RIDGE

LEGEND

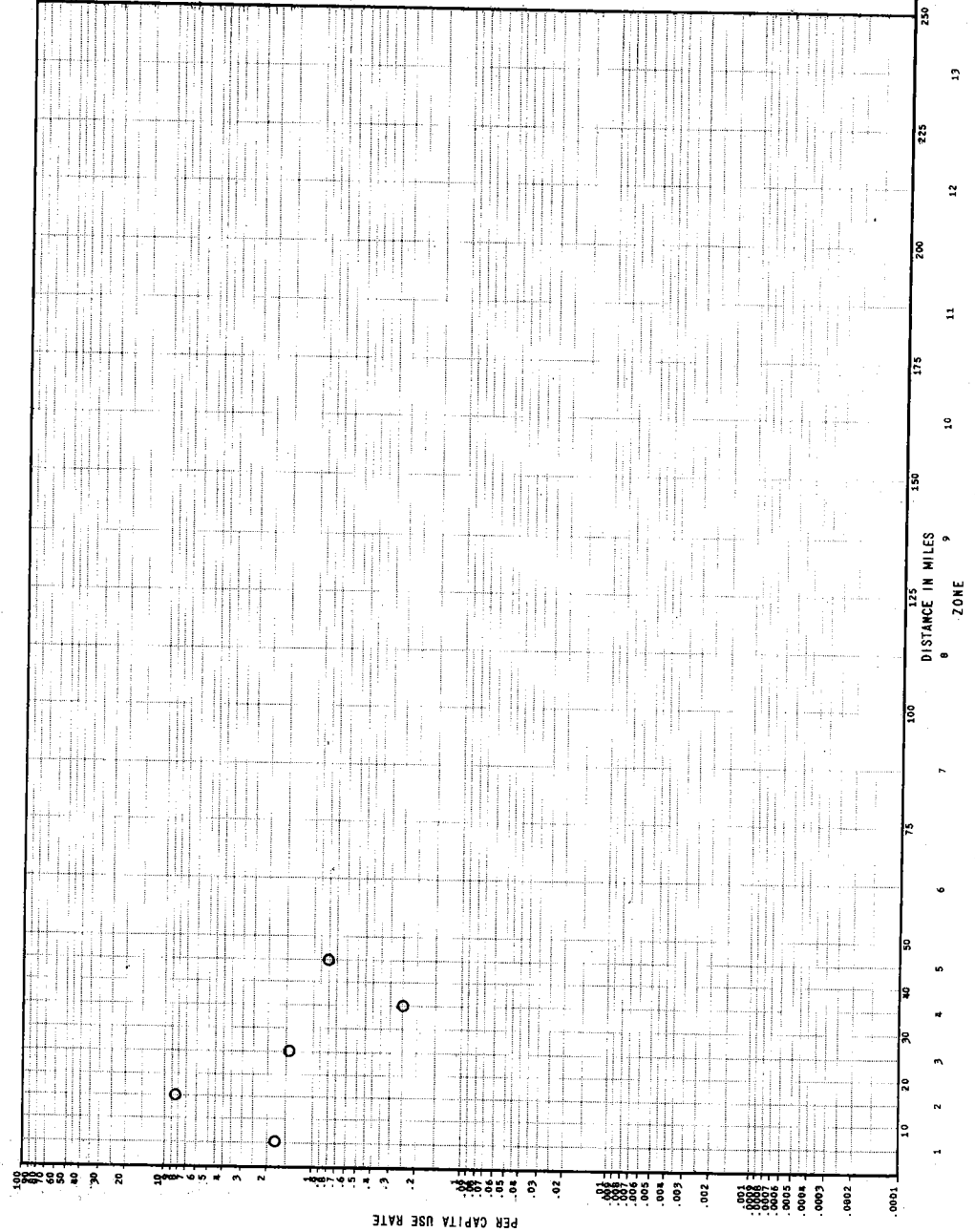
- O SURVEY ESTIMATE
- REGRESSION ESTIMATE

REGRESSION EQUATION:

R² = .

| ZONE | PER CAPITA 1/ USE RATE | ZONAL 2/ POPULATION |
|------|---------------------------|------------------------|
| 1 | | 51,000 |
| 2 | | 106,000 |
| 3 | | 23,000 |
| 4 | | 60,000 |
| 5 | | 23,000 |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/REGRESSION ESTIMATE
2/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT

RECREATION USE

PER CAPITA USE RATES
1966 - 1969

DISTRICT: PORTLAND
PROJECT: HILLS CREEK

LEGEND

○ SURVEY ESTIMATE
— REGRESSION ESTIMATE

REGRESSION EQUATION:

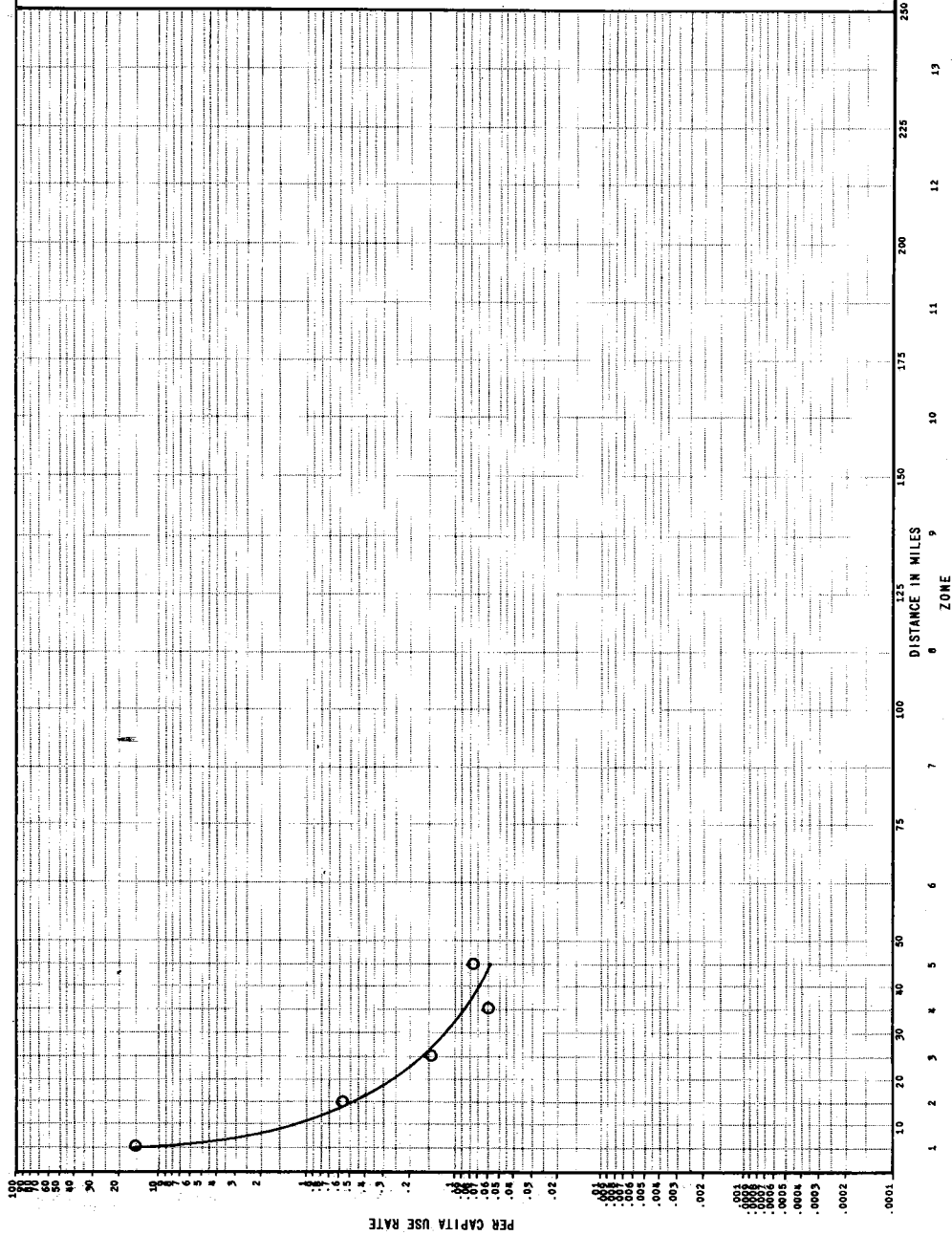
$$Y = \text{Exp}(-5.638874 + 18.939537 X^{-.5})$$

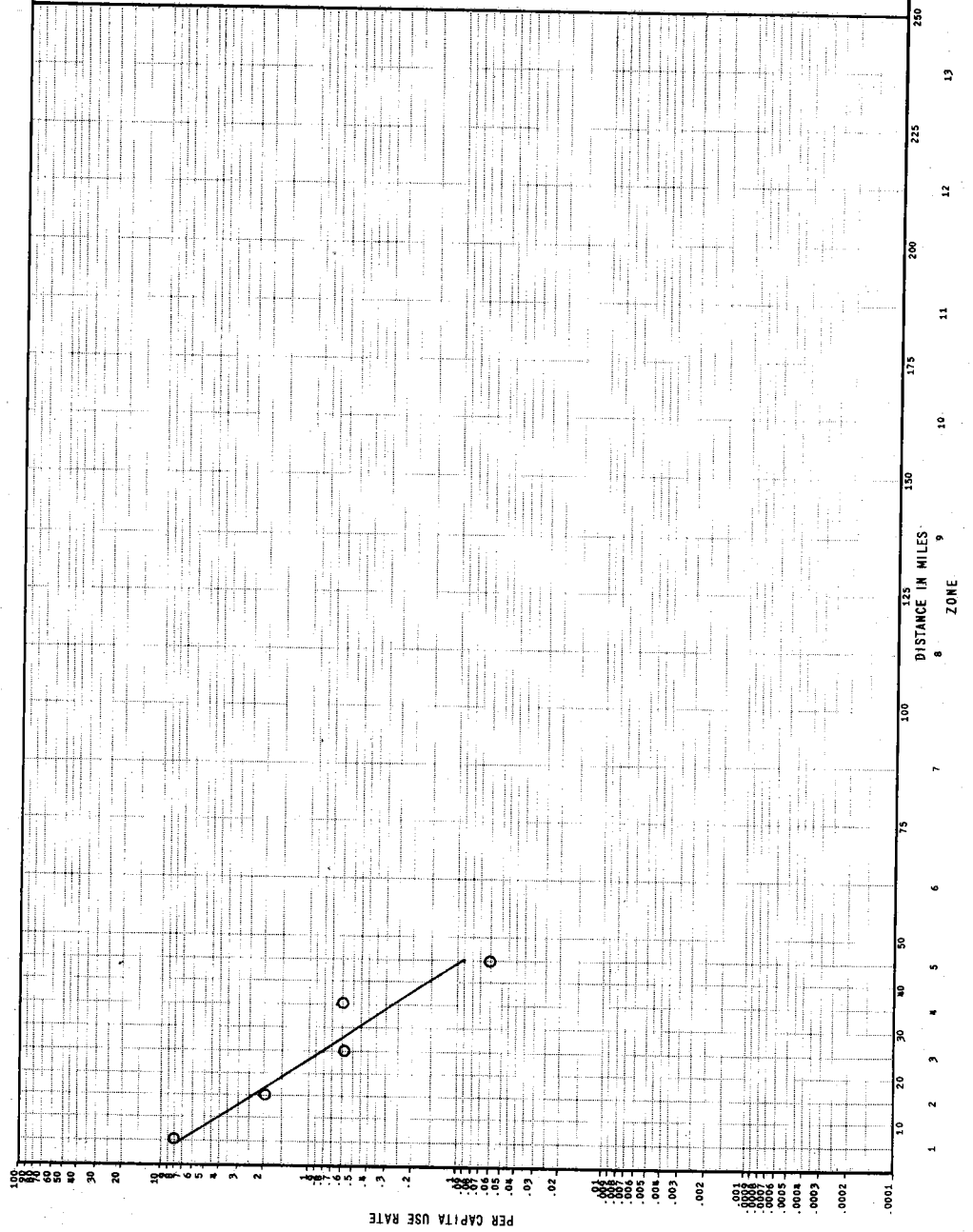
$$R^2 = .99$$

| ZONE | PER CAPITA 1/ USE RATE | ZONAL 2/ POPULATION |
|------|---------------------------|------------------------|
| 1 | 16.9649 | 5,000 |
| 2 | 4730 | 4,000 |
| 3 | 1571 | 4,000 |
| 4 | 874 | 7,000 |
| 5 | 599 | 133,000 |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/REGRESSION ESTIMATE

2/ESTIMATED 1965 POPULATION





PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT RECREATION USE

PER CAPITA USE RATES 1966 - 1969

DISTRICT: PORTLAND
PROJECT: LOOKOUT POINT

LEGEND

O SURVEY ESTIMATE
— REGRESSION ESTIMATE
REGRESSION EQUATION:
 $Y = \text{Exp}(2.538132 - .109816 X)$
 $R^2 = .98$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 7.3086 | 8,000 |
| 2 | 2.4373 | 54,000 |
| 3 | .8128 | 105,000 |
| 4 | .2711 | 18,000 |
| 5 | .0904 | 15,000 |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/REGRESSION ESTIMATE
2/ESTIMATED 1965 POPULATION

PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1969

DISTRICT: PORTLAND
PROJECT: THE DALLES

LEGEND

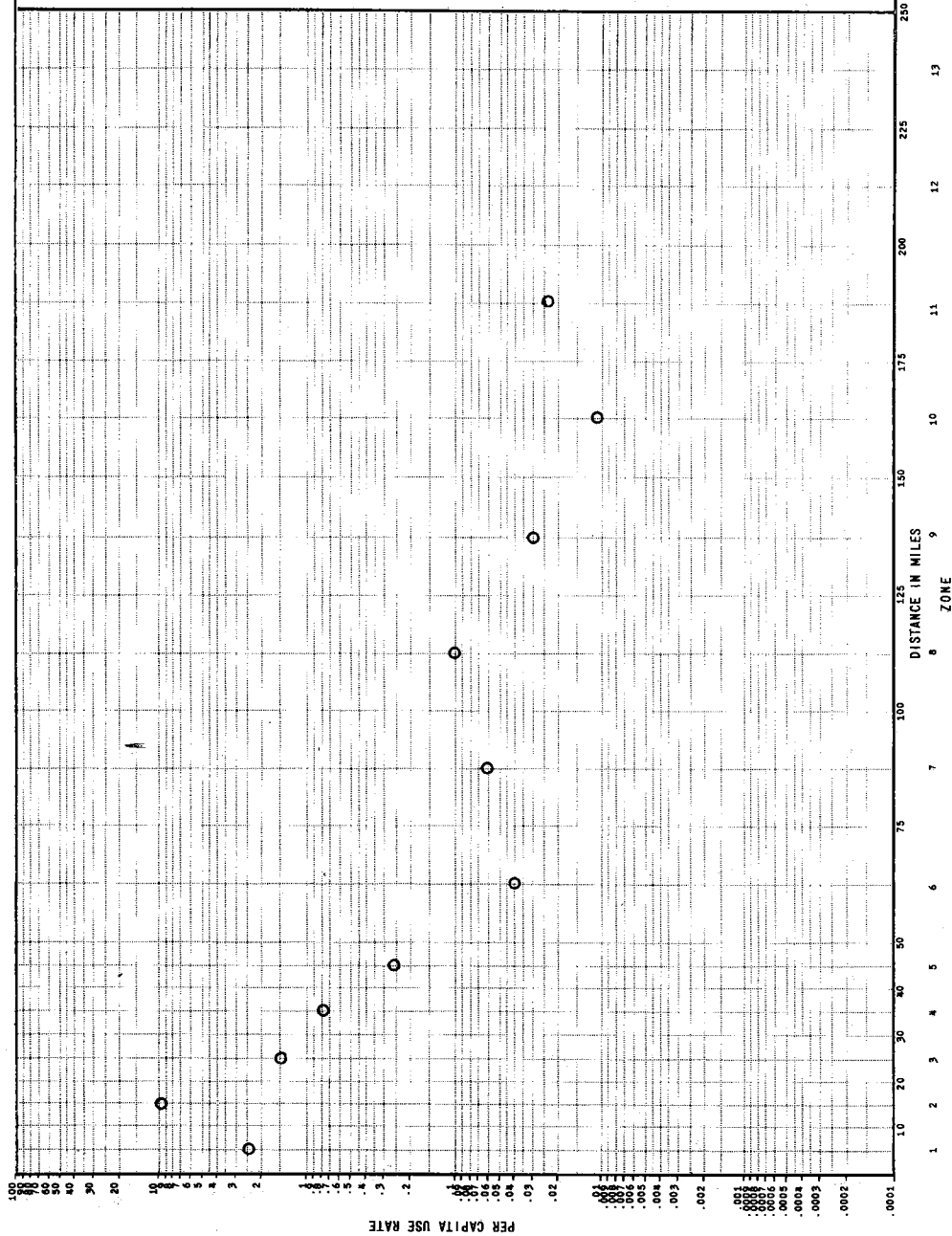
- SURVEY ESTIMATE
 - REGRESSION ESTIMATE
- REGRESSION EQUATION:

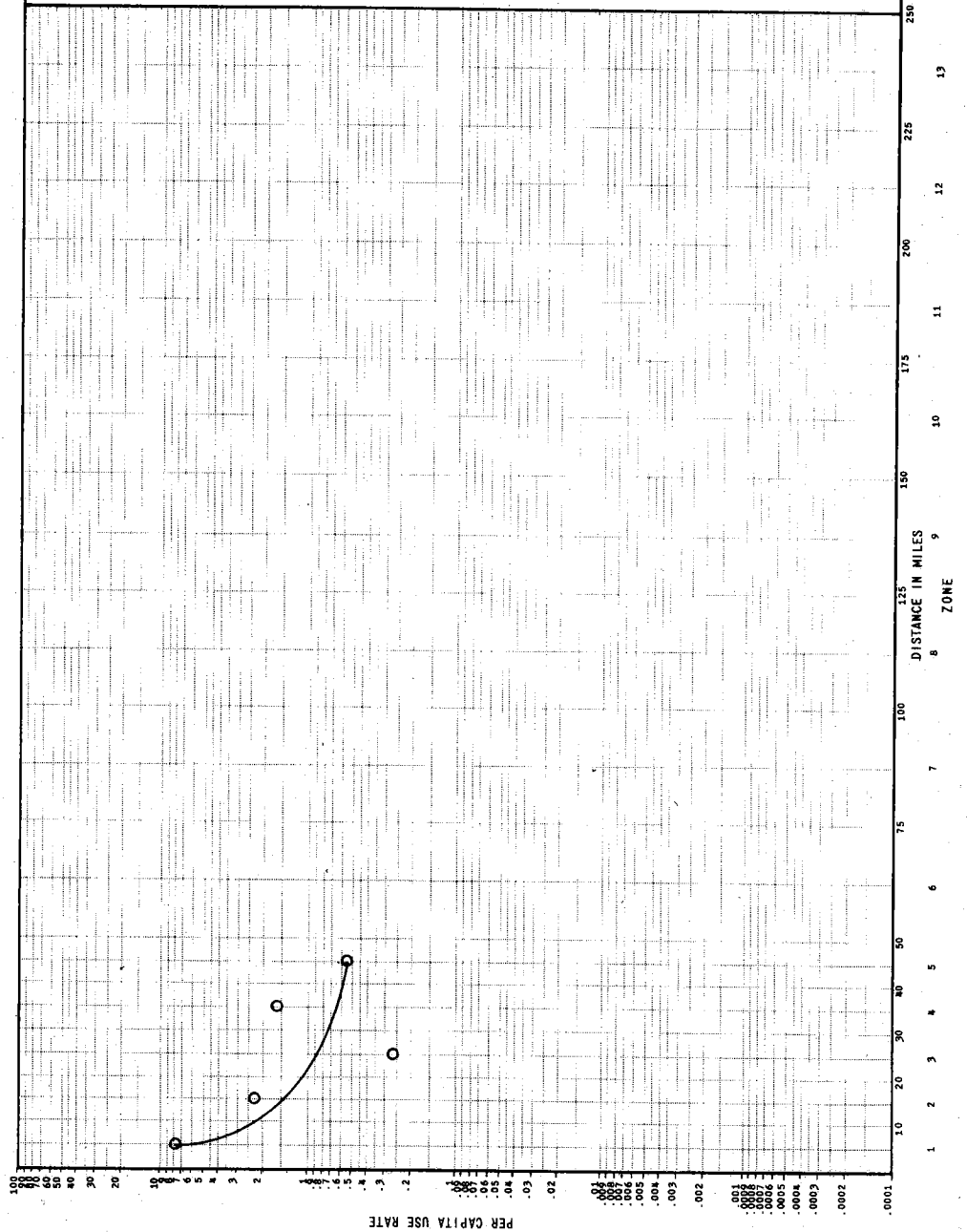
$$R^2 = .$$

| ZONE | PER CAPITA 1/ USE RATE | ZONAL 2/ POPULATION |
|------|---------------------------|------------------------|
| 1 | | 18,000 |
| 2 | | 10,000 |
| 3 | | 12,000 |
| 4 | | 12,000 |
| 5 | | 13,000 |
| 6 | | 215,000 |
| 7 | | 1,000,000 |
| 8 | | 220,000 |
| 9 | | 480,000 |
| 10 | | 320,000 |
| 11 | | 340,000 |
| 12 | | |
| 13 | | |

1/ REGRESSION ESTIMATE

2/ ESTIMATED 1965 POPULATION





PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT

RECREATION USE

PER CAPITA USE RATES 1966 - 1969

DISTRICT: SACRAMENTO

PROJECT: BLACK BUTTE

LEGEND

O SURVEY ESTIMATE

— REGRESSION ESTIMATE

REGRESSION EQUATION:

$$Y = \text{Exp}(-1.850206 + 8.623624 X^{-0.5})$$

$$R^2 = .95$$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 7.4365 | 5,790 |
| 2 | 1.4570 | 9,150 |
| 3 | .8821 | 38,130 |
| 4 | .6753 | 36,690 |
| 5 | .5685 | 19,170 |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/ REGRESSION ESTIMATE

2/ ESTIMATED 1965 POPULATION

PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1969

DISTRICT: SACRAMENTO
PROJECT: ENGLEBRIGHT

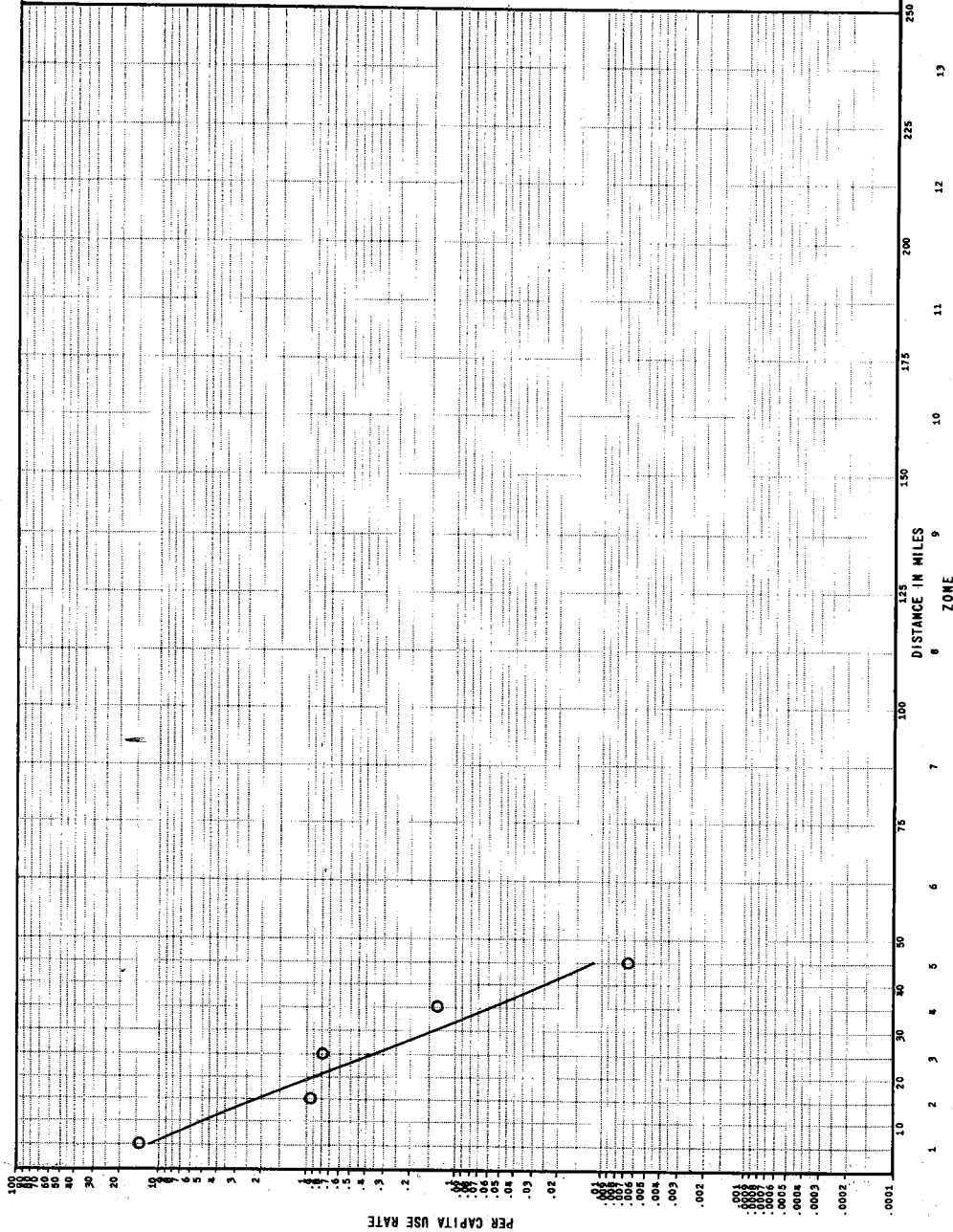
LEGEND

O SURVEY ESTIMATE
— REGRESSION ESTIMATE

REGRESSION EQUATION:
 $Y = \text{Exp}(3.40594 - .173997 X)$
 $R^2 = .97$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 12.6285 | 1,460 |
| 2 | 2.2166 | 20,820 |
| 3 | .3891 | 58,260 |
| 4 | .0683 | 53,490 |
| 5 | .0120 | 43,770 |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

— REGRESSION ESTIMATE
— ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT RECREATION USE

PER CAPITA USE RATES 1966 - 1969

DISTRICT: SACRAMENTO
PROJECT: ISABELLA

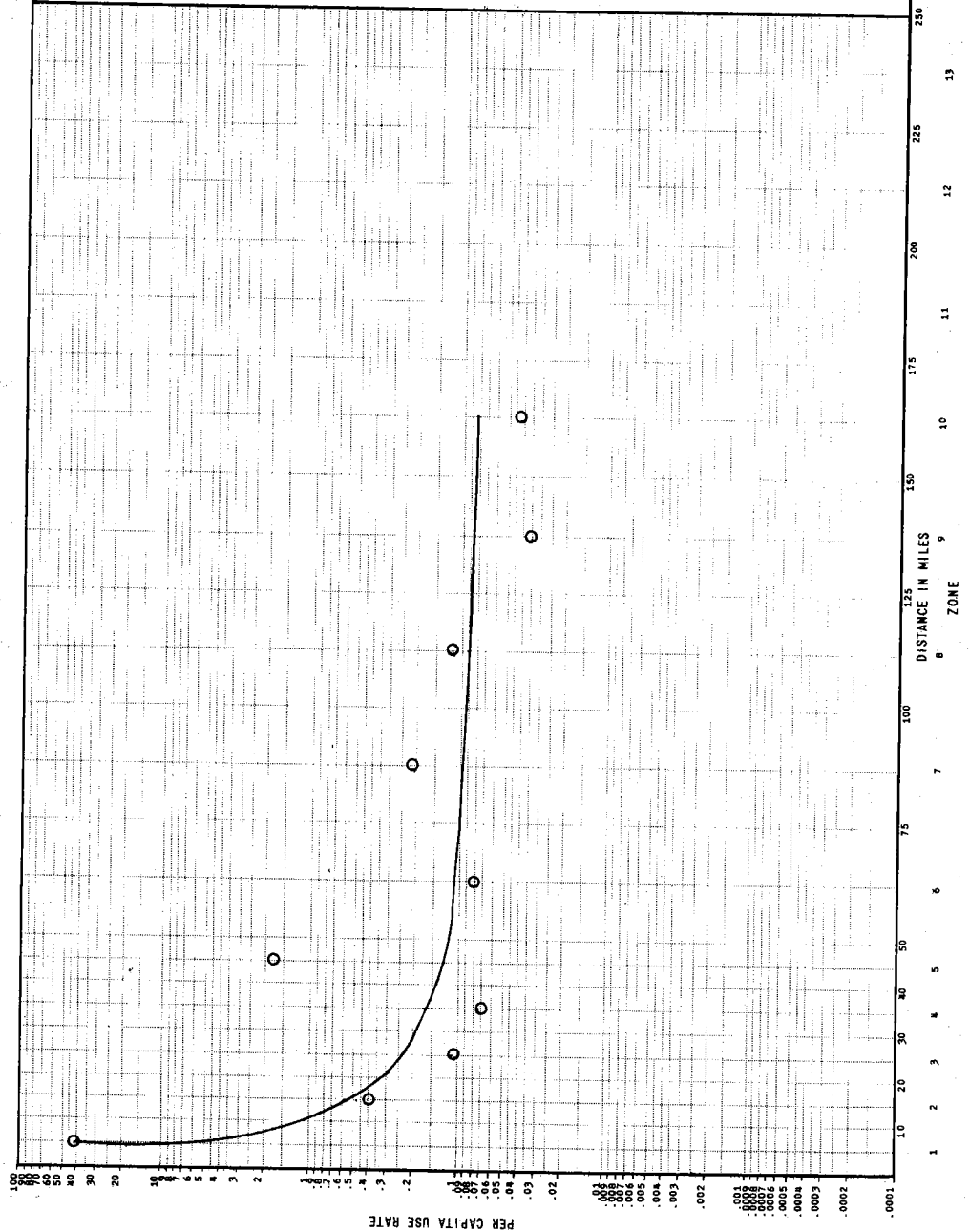
LEGEND
O SURVEY ESTIMATE
— REGRESSION ESTIMATE

$$Y = \text{Exp}(-2.673584 + 31.654021 x^{-1})$$

$$R^2 = .99$$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 38.7534 | 1,690 |
| 2 | .5693 | 1,010 |
| 3 | .2448 | 1,800 |
| 4 | .1705 | 43,200 |
| 5 | .1394 | 98,810 |
| 6 | .1145 | 179,310 |
| 7 | .0991 | 88,130 |
| 8 | .0914 | 165,060 |
| 9 | .0869 | 2,508,170 |
| 10 | .0838 | 5,266,130 |
| 11 | | |
| 12 | | |
| 13 | | |

1/ REGRESSION ESTIMATE
2/ ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT RECREATION USE

PER CAPITA USE RATES 1966 - 1969

DISTRICT: SACRAMENTO
PROJECT: NEW HOGAN

LEGEND

O SURVEY ESTIMATE

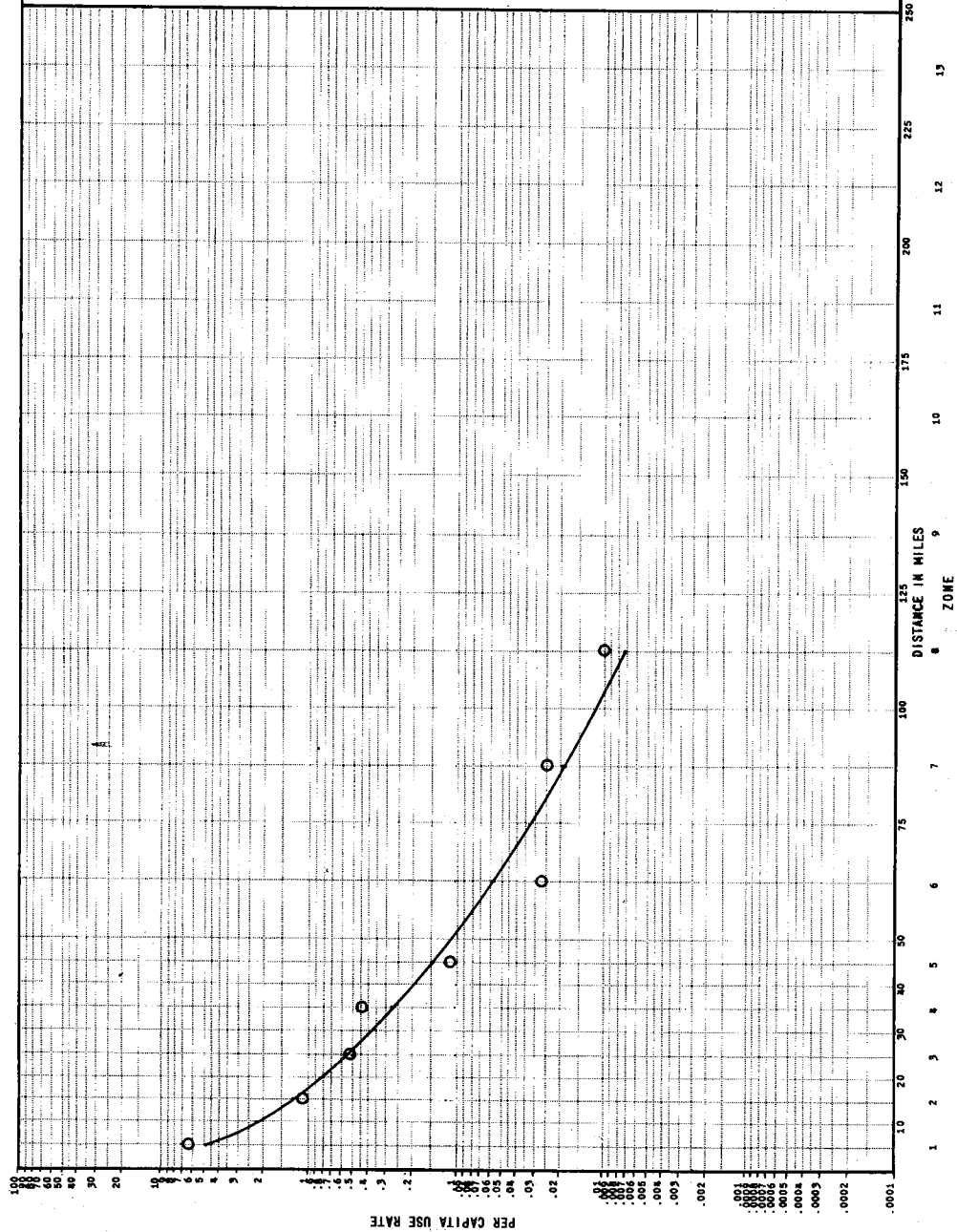
— REGRESSION ESTIMATE

REGRESSION EQUATION:
 $Y = \exp(3.301201 - .776433 X^{.5})$
 $R^2 = .92$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 4.7829 | 1,660 |
| 2 | 1.3419 | 7,860 |
| 3 | .5594 | 20,600 |
| 4 | .2747 | 193,590 |
| 5 | .1485 | 220,710 |
| 6 | .0986 | 751,250 |
| 7 | .0190 | 1,457,740 |
| 8 | .0072 | 3,080,800 |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

— REGRESSION ESTIMATE

— ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT RECREATION USE

PER CAPITA USE RATES 1966 - 1969

DISTRICT: SACRAMENTO
PROJECT: PINE FLAT

LEGEND

○ SURVEY ESTIMATE

— REGRESSION ESTIMATE

REGRESSION EQUATION:

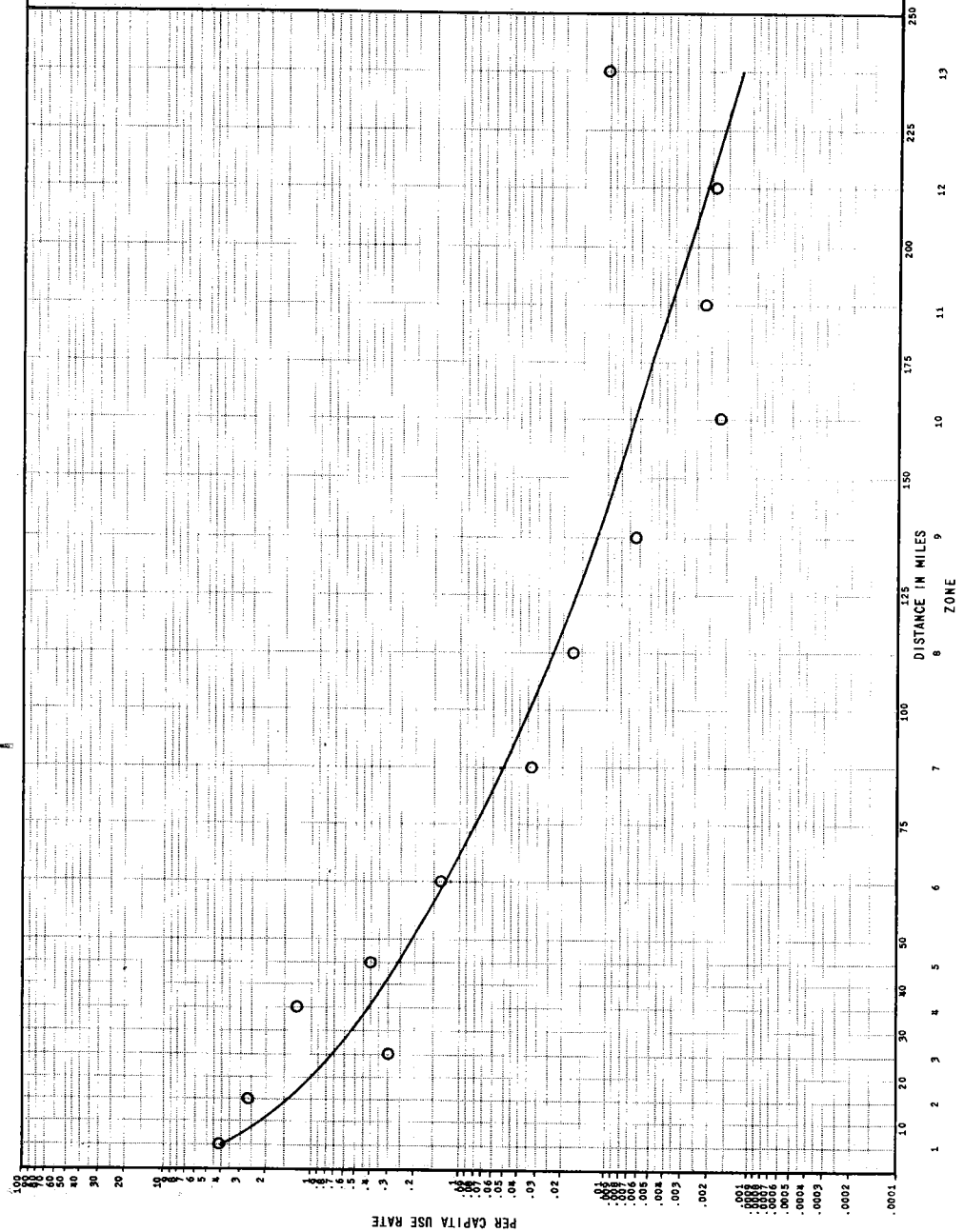
$$Y = \text{Exp}(2.753375 - .609749 \cdot 5)$$

$$R^2 = .88$$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 4.0146 | 1,160 |
| 2 | 1.4797 | 15,070 |
| 3 | .7443 | 172,450 |
| 4 | .4257 | 184,020 |
| 5 | .2626 | 77,500 |
| 6 | .1265 | 177,670 |
| 7 | .0523 | 183,000 |
| 8 | .0244 | 329,700 |
| 9 | .0123 | 298,400 |
| 10 | .0066 | 854,600 |
| 11 | .0037 | 2,225,500 |
| 12 | .0022 | 4,395,200 |
| 13 | .0013 | 4,537,000 |

1/REGRESSION ESTIMATE

2/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1969

DISTRICT: SACRAMENTO
PROJECT: SUCCESS

LEGEND

O SURVEY ESTIMATE

— REGRESSION ESTIMATE

REGRESSION EQUATION:

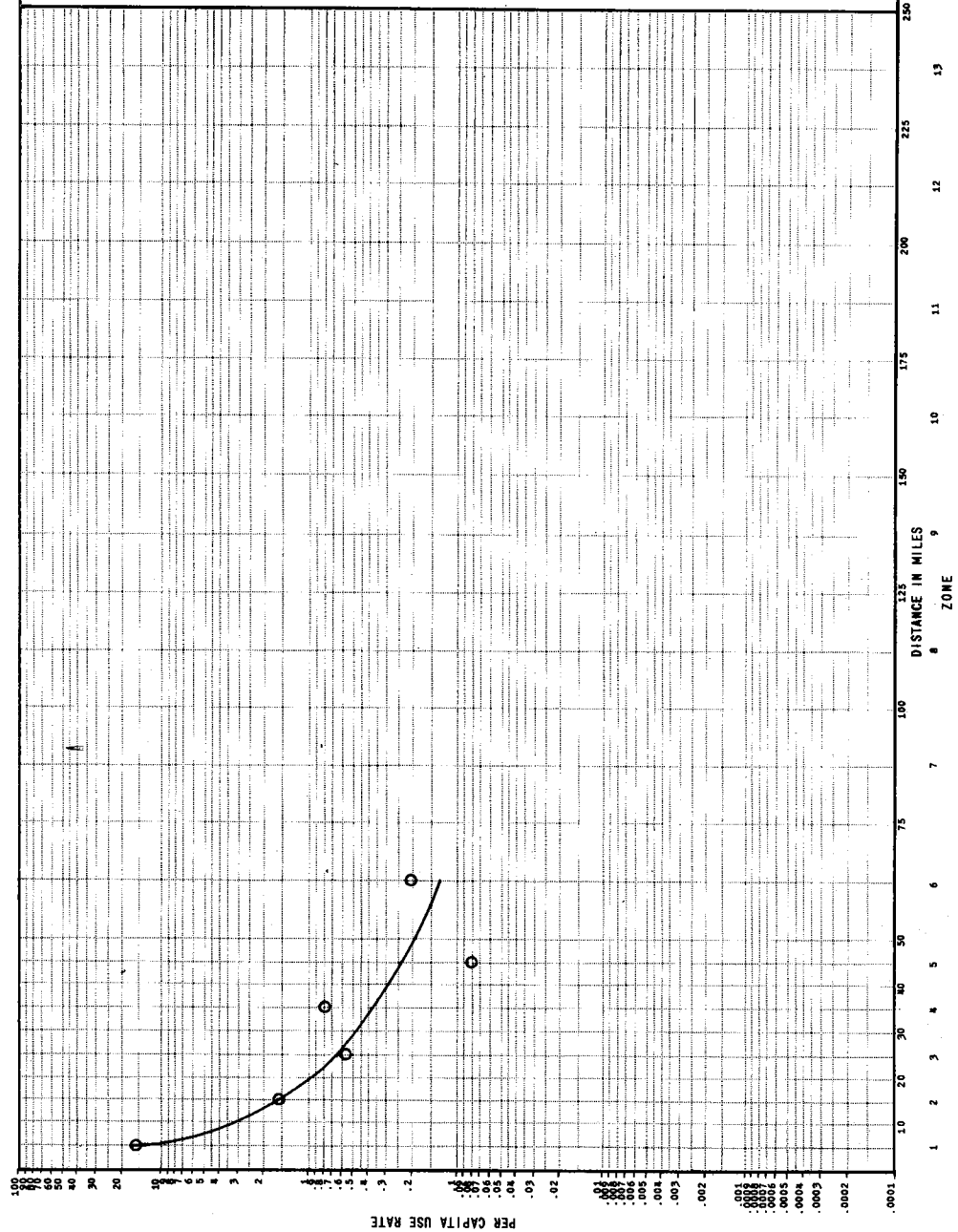
$$Y = \text{Exp}(5.121471 - 1.717239 \text{ LNX})$$

$$R^2 = .99$$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 10.5664 | 21,260 |
| 2 | 1.6018 | 28,550 |
| 3 | .6662 | 30,200 |
| 4 | .3738 | 60,460 |
| 5 | .2428 | 66,330 |
| 6 | .1381 | 367,300 |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/ REGRESSION ESTIMATE

2/ ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT RECREATION USE

PER CAPITA USE RATES 1966 - 1969

DISTRICT: SACRAMENTO
PROJECT: TERMINUS

LEGEND

- SURVEY ESTIMATE
- REGRESSION ESTIMATE

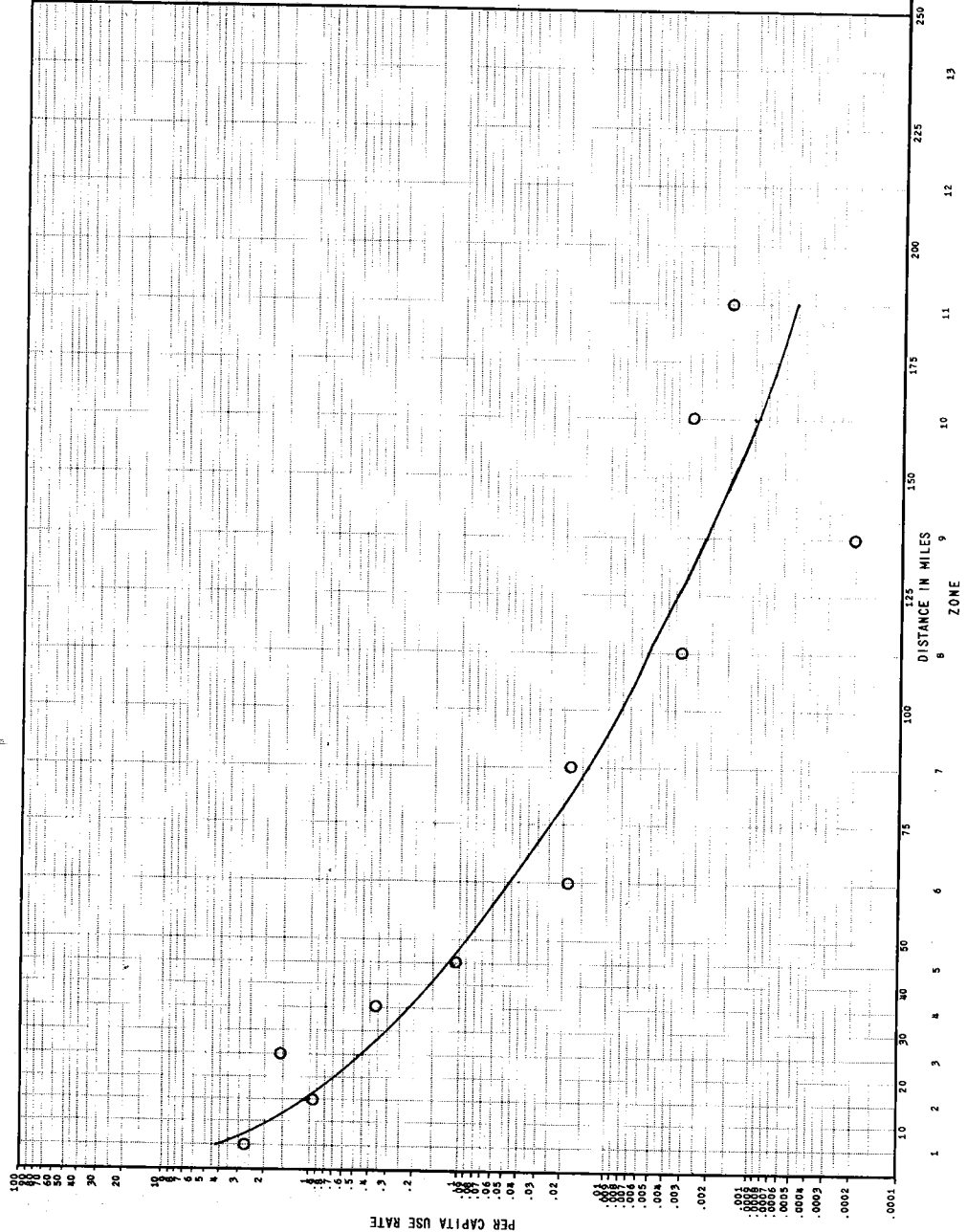
REGRESSION EQUATION:

$$Y = \text{Exp}(3.188035 - .792697 X^{.5})$$

$$R^2 = .59$$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 4.1186 | 8,060 |
| 2 | 1.1252 | 51,880 |
| 3 | .4605 | 82,840 |
| 4 | .2228 | 53,250 |
| 5 | .1189 | 91,870 |
| 6 | .0460 | 359,300 |
| 7 | .0146 | 322,600 |
| 8 | .0054 | 123,900 |
| 9 | .0022 | 178,400 |
| 10 | .0010 | 585,000 |
| 11 | .0005 | 3,982,400 |
| 12 | | |
| 13 | | |

1/REGRESSION ESTIMATE
 2/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1969

DISTRICT: SAVANNAH
PROJECT: CLARK HILL

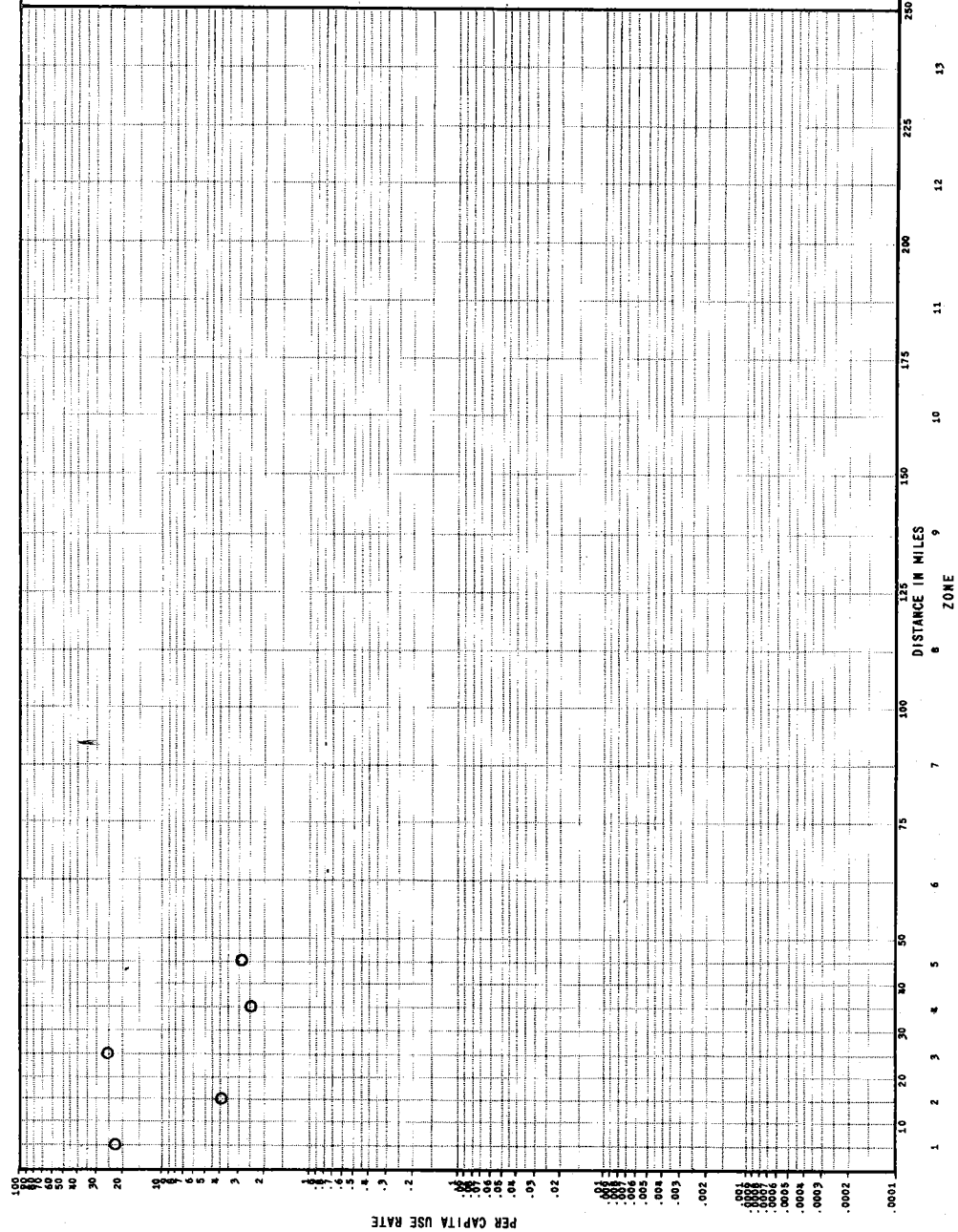
LEGEND

O SURVEY ESTIMATE
— REGRESSION ESTIMATE
REGRESSION EQUATION:

$R^2 = .$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | | 27,600 |
| 2 | | 43,440 |
| 3 | | 58,510 |
| 4 | | 205,400 |
| 5 | | 137,510 |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/REGRESSION ESTIMATE
2/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1969

DISTRICT: SAVANNAH
PROJECT: HARTWELL

LEGEND

○ SURVEY ESTIMATE
— REGRESSION ESTIMATE

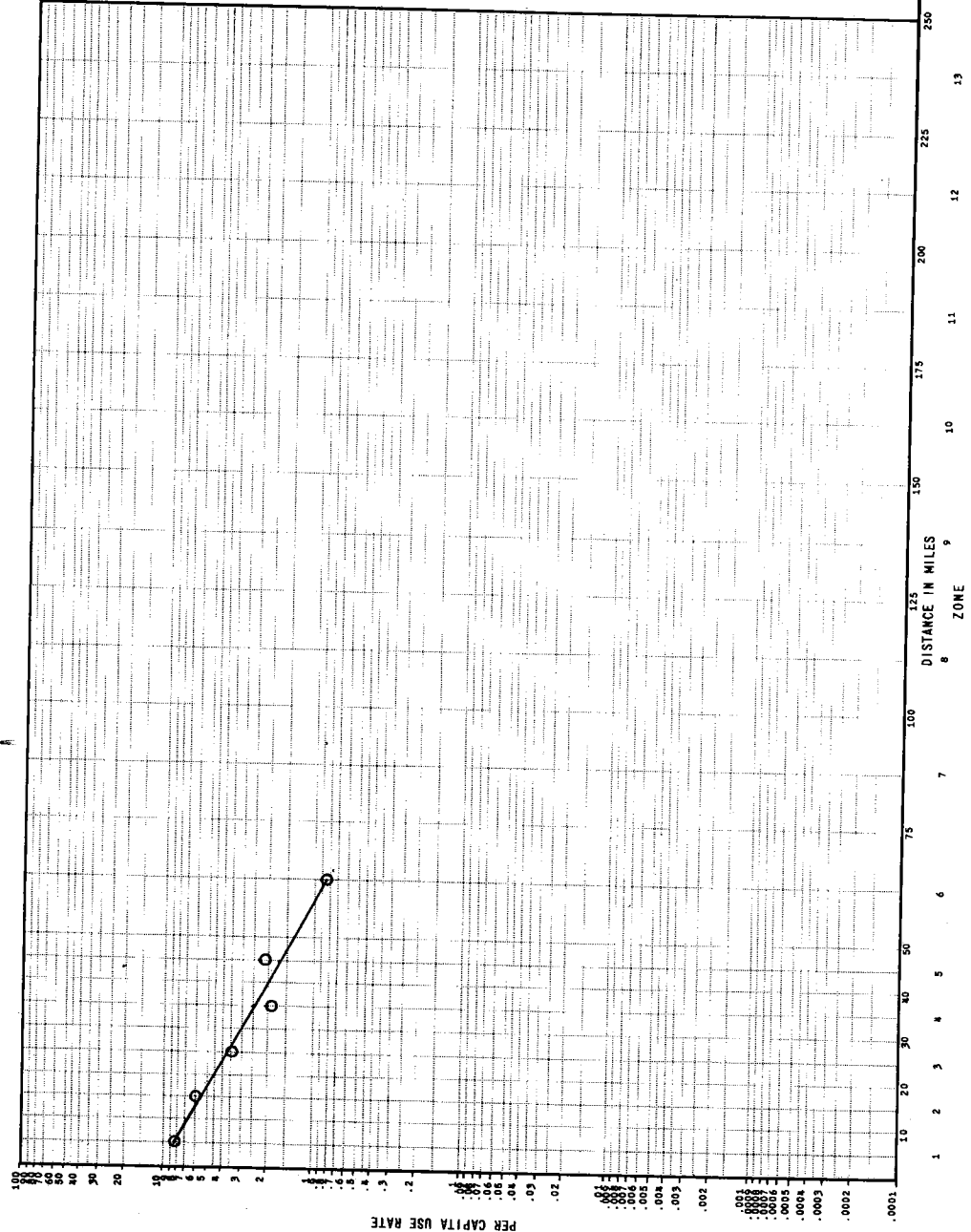
REGRESSION EQUATION:

$$Y = \text{Exp}(2.300489 - .039514 X)$$

$$R^2 = .98$$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 8.1900 | 144,820 |
| 2 | 5.5167 | 114,590 |
| 3 | 3.7159 | 97,740 |
| 4 | 2.5030 | 190,980 |
| 5 | 1.6860 | 253,710 |
| 6 | .8444 | 405,700 |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

— REGRESSION ESTIMATE
— ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1969

DISTRICT: TULSA
PROJECT: CANTON

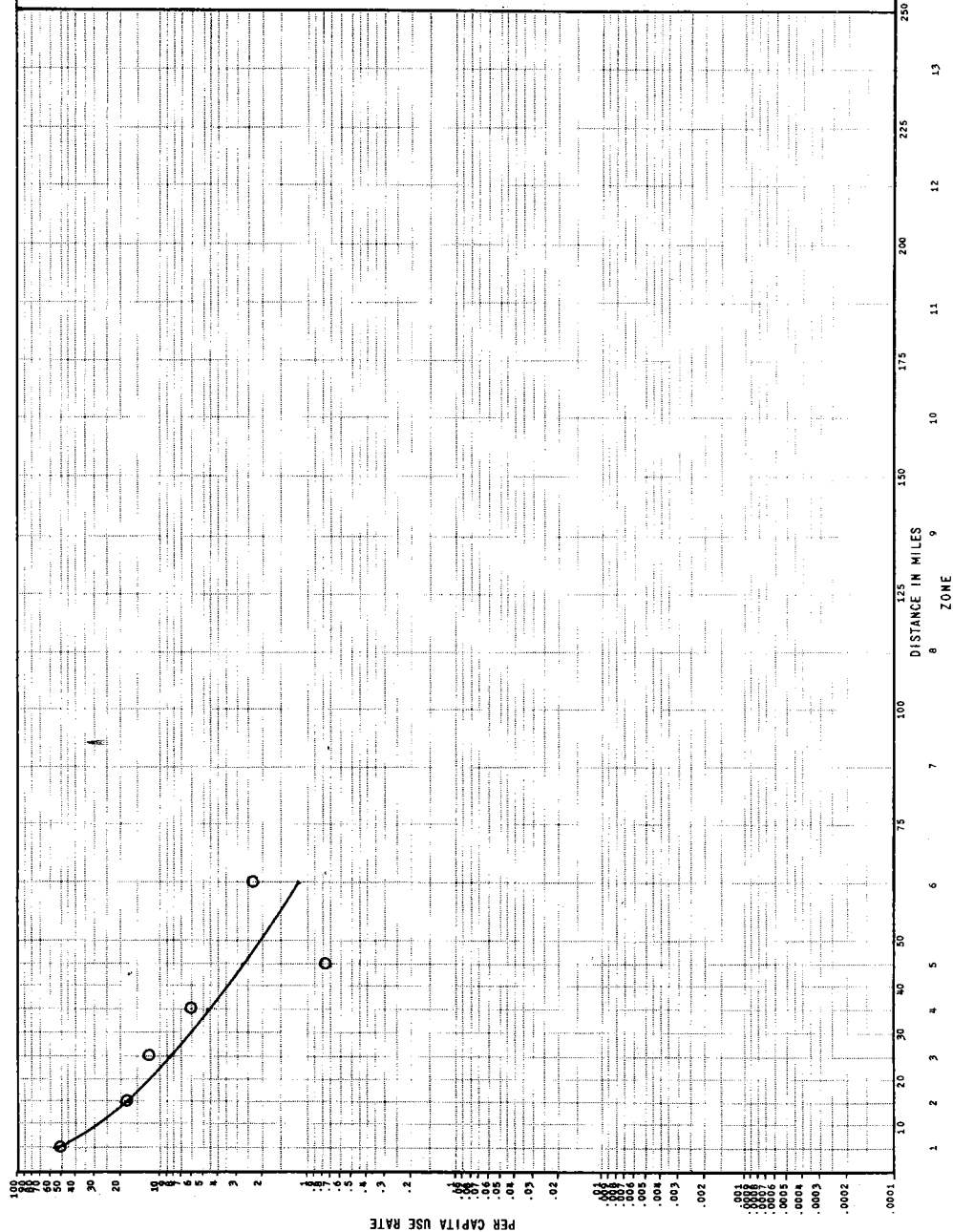
LEGEND

O SURVEY ESTIMATE
— REGRESSION ESTIMATE

REGRESSION EQUATION:
 $Y = \text{Exp}(5.480215 - .669378 X^{.5})$
 $R^2 = .99$

| ZONE | PER CAPITA USE RATE | POPULATION |
|------|------------------------|------------|
| 1 | 53.7014 | 2,970 |
| 2 | 17.9524 | 8,026 |
| 3 | 8.4429 | 8,190 |
| 4 | 4.5728 | 9,470 |
| 5 | 2.6910 | 22,230 |
| 6 | 1.2073 | 137,440 |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/ REGRESSION ESTIMATE
2/ ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT
RECREATION USEPER CAPITA USE RATES
1966 - 1969

DISTRICT: TULSA
PROJECT: DENISON

LEGEND

○ SURVEY ESTIMATE

REGRESSION ESTIMATE

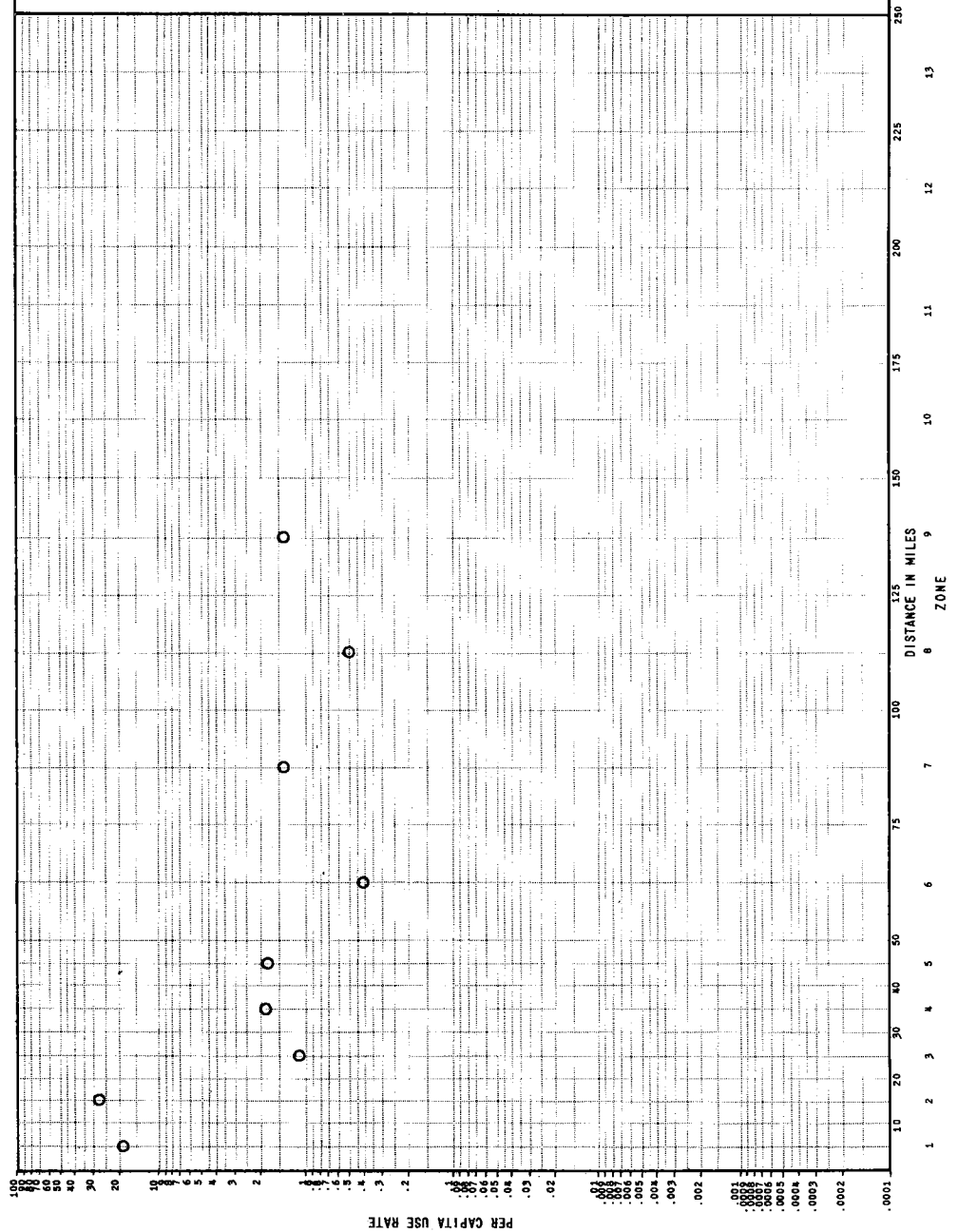
REGRESSION EQUATION :

$$R^2 = .$$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | | 53,360 |
| 2 | | 60,800 |
| 3 | | 64,270 |
| 4 | | 67,980 |
| 5 | | 68,740 |
| 6 | | 593,800 |
| 7 | | 1,334,100 |
| 8 | | 984,700 |
| 9 | | 889,500 |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/REGRESSION ESTIMATE

2/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT
RECREATION USE

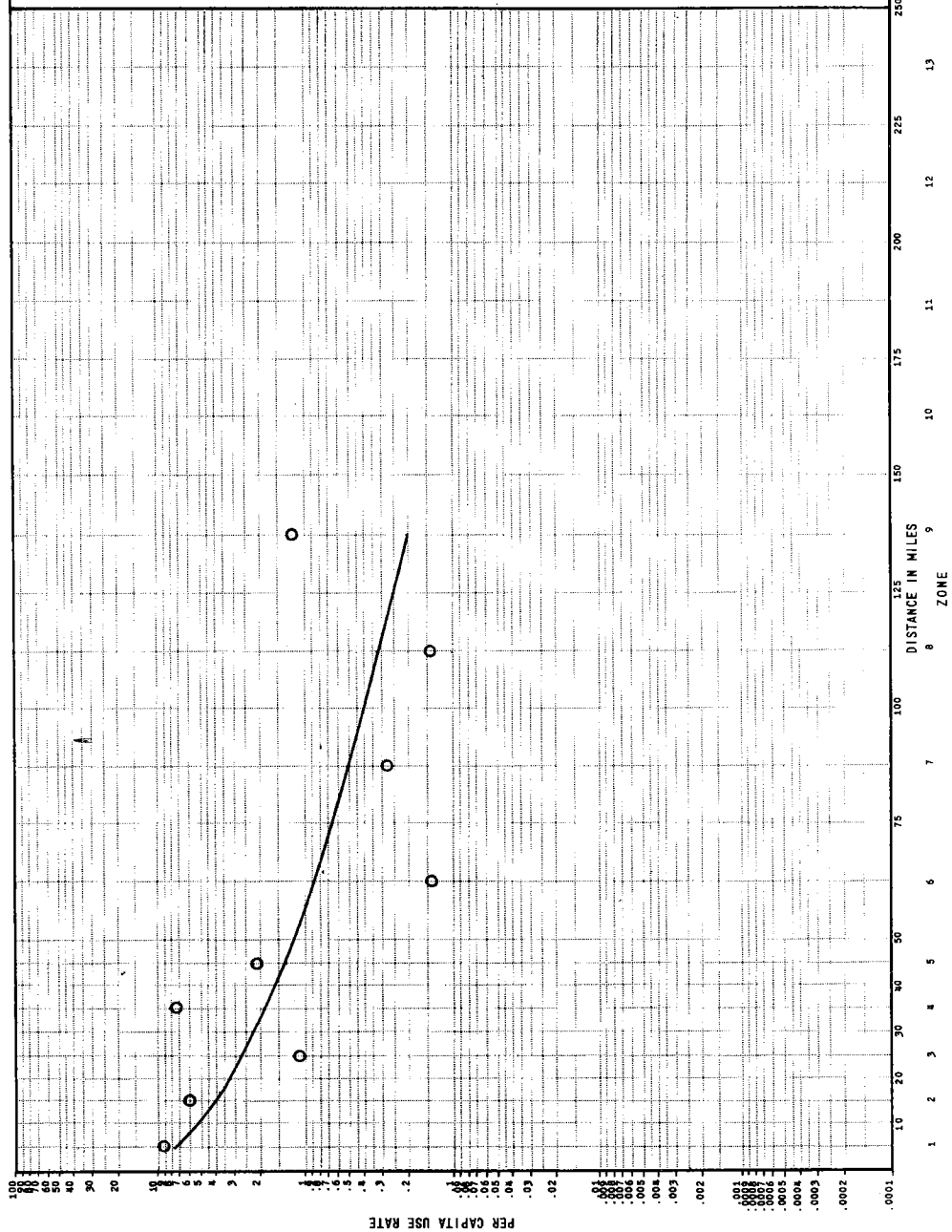
PER CAPITA USE RATES
1966 - 1969

DISTRICT: TULSA
PROJECT: EUFAULA

LEGEND

O SURVEY ESTIMATE
— REGRESSION ESTIMATE

REGRESSION EQUATION:
 $Y = \text{Exp}(2.877708 - .378753 X^{.5})$
 $R^2 = .57$



| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|---------------------|------------------|
| 1 | 7.6201 | 31,710 |
| 2 | 4.9993 | 33,500 |
| 3 | 2.6750 | 86,700 |
| 4 | 1.8908 | 33,730 |
| 5 | 1.4007 | 67,140 |
| 6 | .8900 | 734,960 |
| 7 | .5142 | 792,380 |
| 8 | .3200 | 455,480 |
| 9 | .2094 | 556,740 |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/ REGRESSION ESTIMATE
2/ ESTIMATED 1965 POPULATION

PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT

RECREATION USE

PER CAPITA USE RATES
1966 - 1969

DISTRICT: TULSA

PROJECT: FALL RIVER

LEGEND

O SURVEY ESTIMATE

— REGRESSION ESTIMATE

REGRESSION EQUATION:

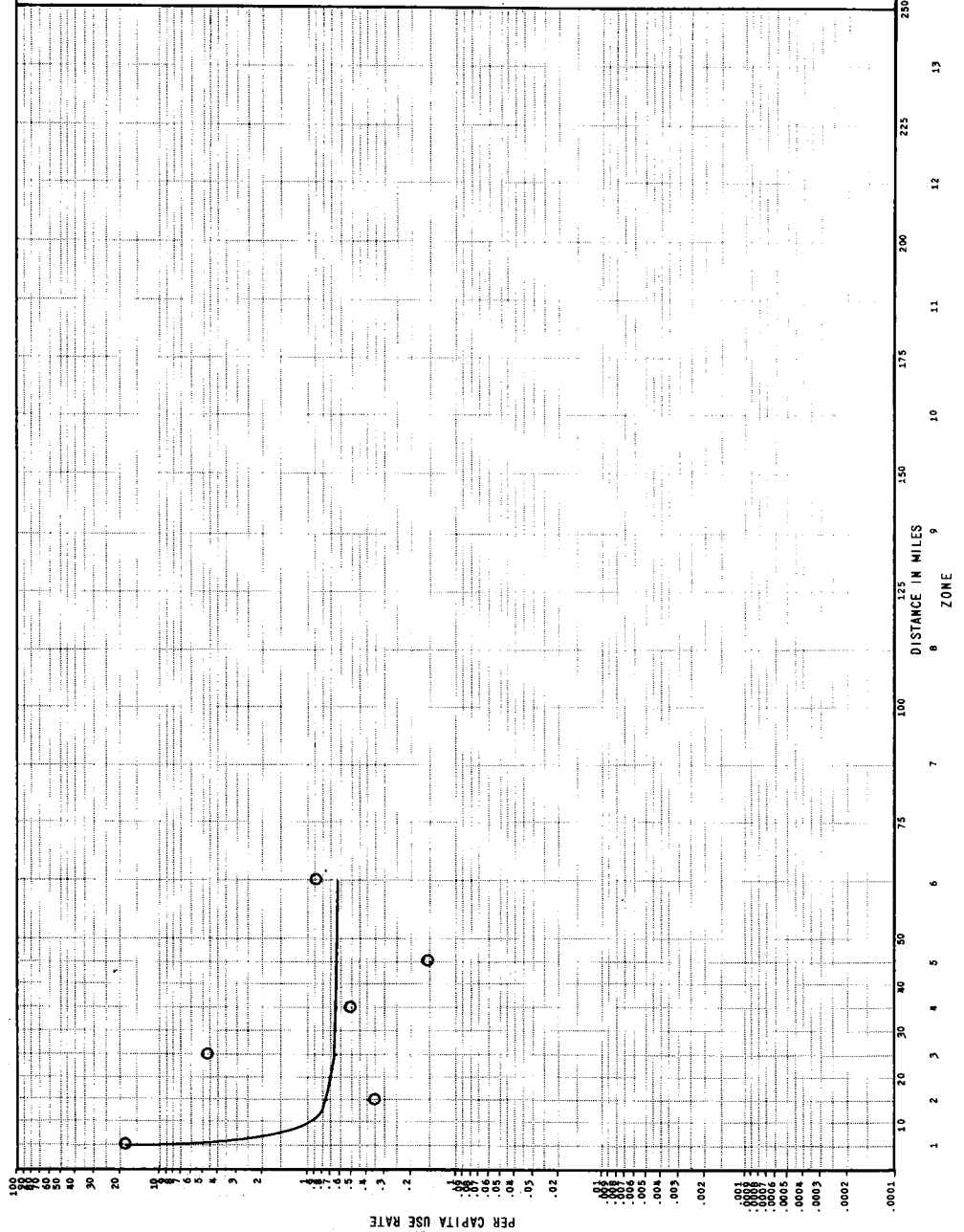
$$Y = \text{Exp} (-0.456937 + 417.808552 X^{-3})$$

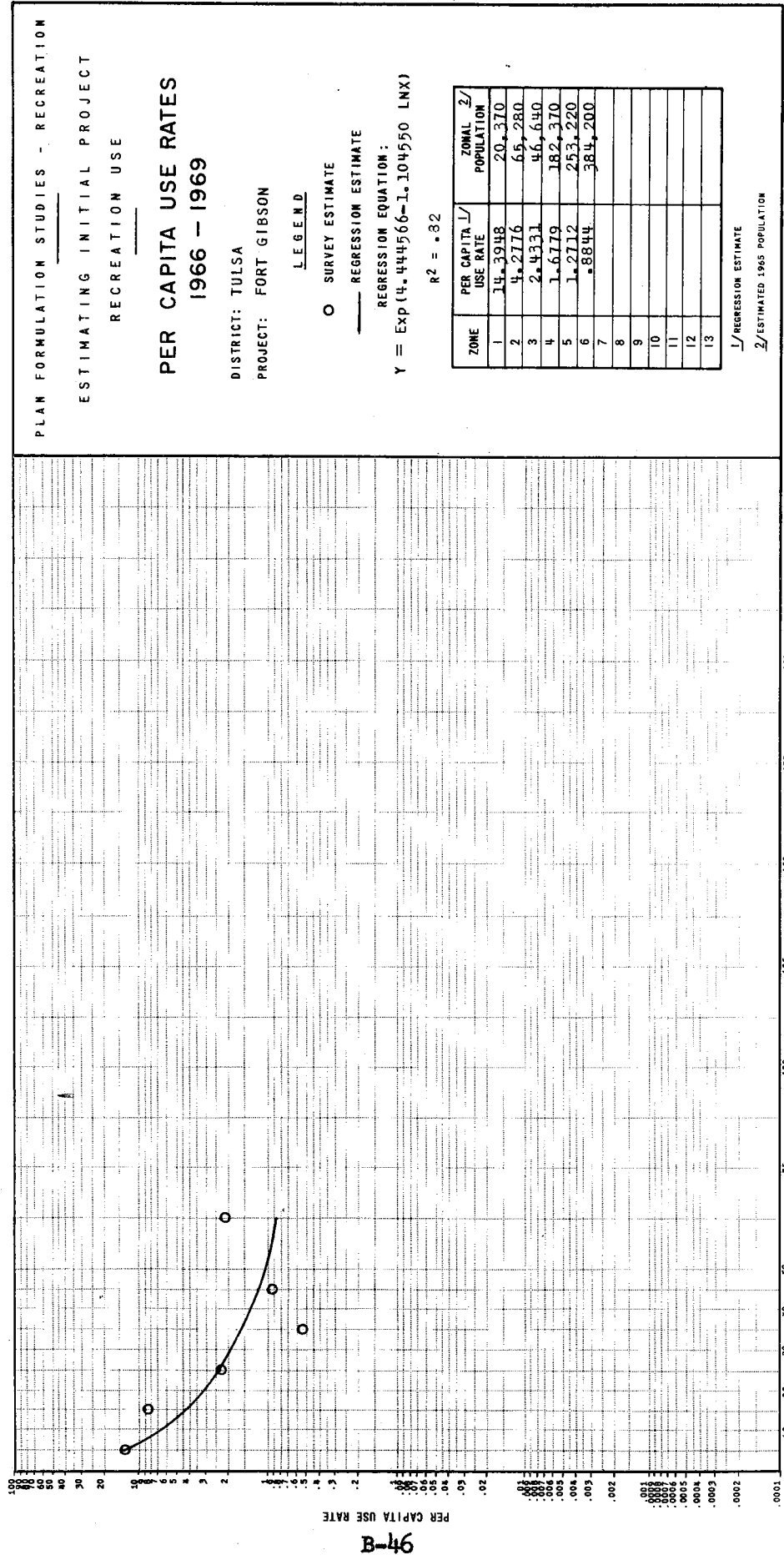
$$R^2 = .94$$

| ZONE | PER CAPITA $\frac{1}{X}$ USE RATE | ZONAL $\frac{2}{Y}$ POPULATION |
|------|--------------------------------------|-----------------------------------|
| 1 | 17.9131 | 1,710 |
| 2 | 7.167 | 8,410 |
| 3 | 6.333 | 12,170 |
| 4 | 6.333 | 28,130 |
| 5 | 6.333 | 46,820 |
| 6 | 6.344 | 247,500 |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

$\frac{1}{X}$ REGRESSION ESTIMATE

$\frac{2}{Y}$ ESTIMATED 1965 POPULATION





PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1969

DISTRICT: TULSA
PROJECT: FORT SUPPLY

LEGEND

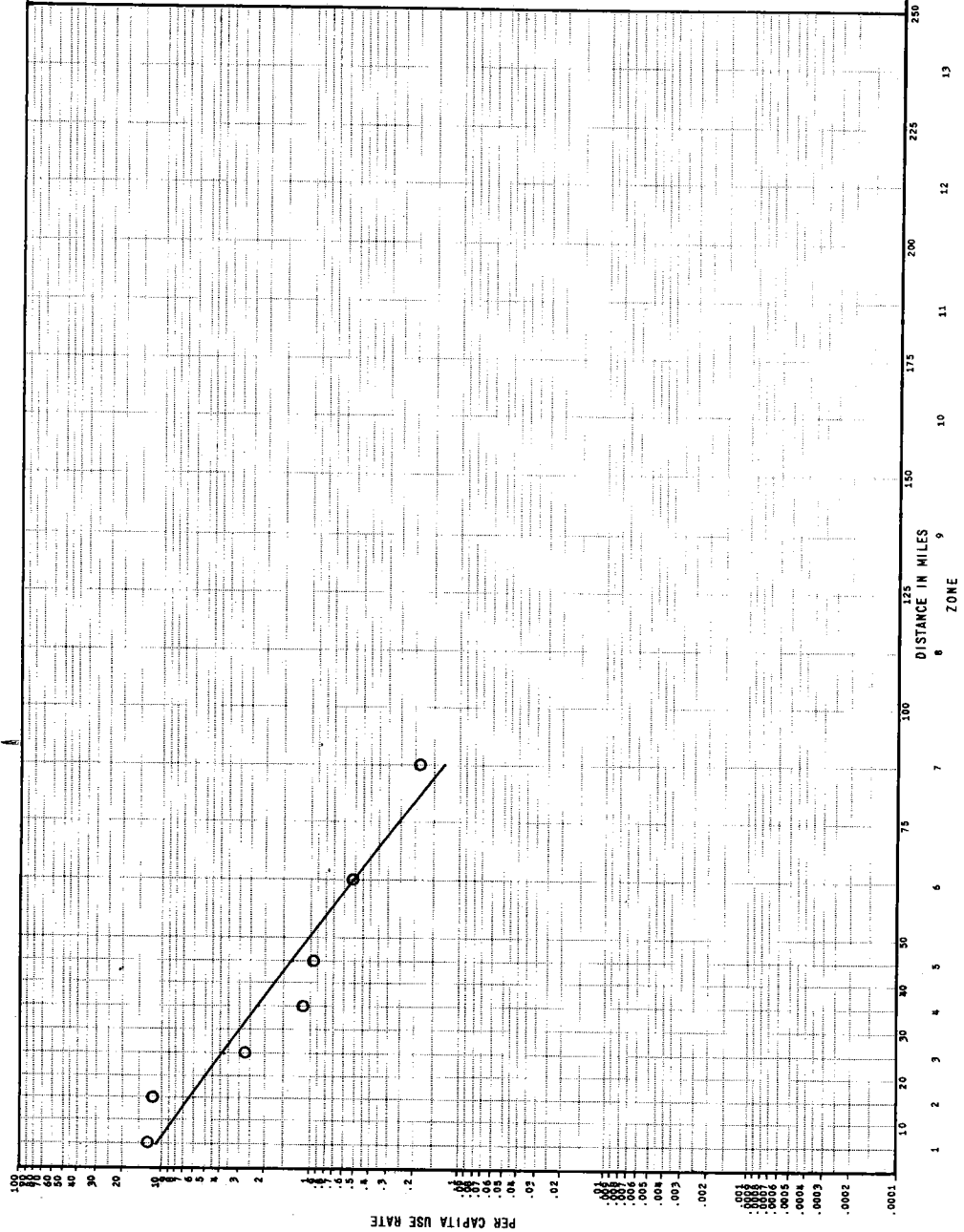
○ SURVEY ESTIMATE
— REGRESSION ESTIMATE

REGRESSION EQUATION:
 $Y = \text{Exp}(2.661436 - .053322 X)$

$R^2 = .78$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 10.9663 | 2,430 |
| 2 | 6.4340 | 9,790 |
| 3 | 3.7749 | 9,550 |
| 4 | 2.2148 | 5,360 |
| 5 | 1.2995 | 9,210 |
| 6 | .5111 | 25,660 |
| 7 | .1348 | 67,940 |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/REGRESSION ESTIMATE
2/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1969

DISTRICT: TULSA
PROJECT: GREAT SALT PLAINS

LEGEND

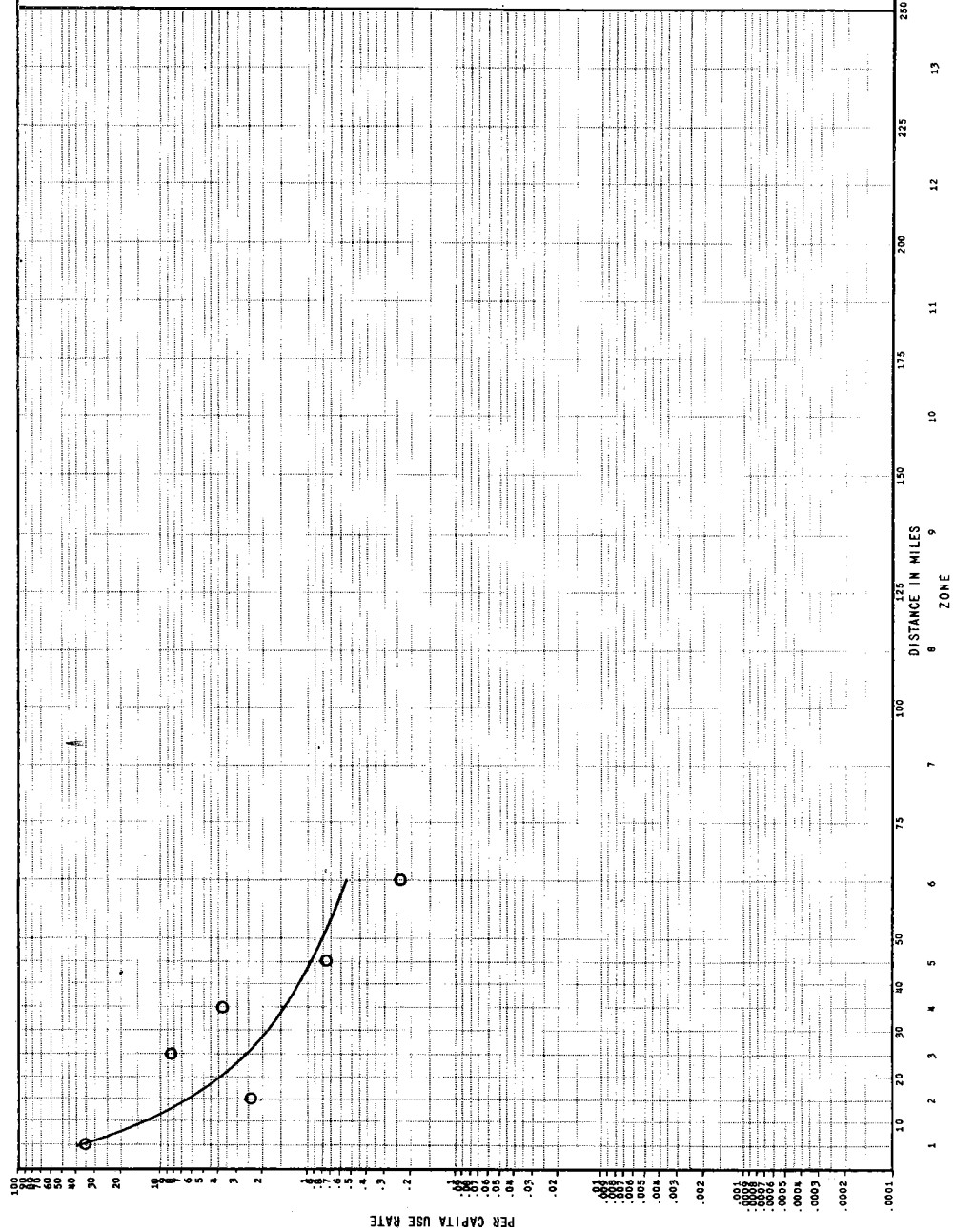
O SURVEY ESTIMATE
— REGRESSION ESTIMATE

REGRESSION EQUATION:
 $Y = \text{Exp}(6.365929 - 1.677949 \text{ LNX})$

$R^2 = .92$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 39.0108 | 1,100 |
| 2 | 6.1840 | 6,050 |
| 3 | 2.6244 | 9,500 |
| 4 | 1.4922 | 63,990 |
| 5 | .9788 | 18,600 |
| 6 | .5641 | 193,970 |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/REGRESSION ESTIMATE
2/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT RECREATION USE

PER CAPITA USE RATES 1966 - 1969

DISTRICT: TULSA

PROJECT: HEYBURN

LEGEND

O SURVEY ESTIMATE

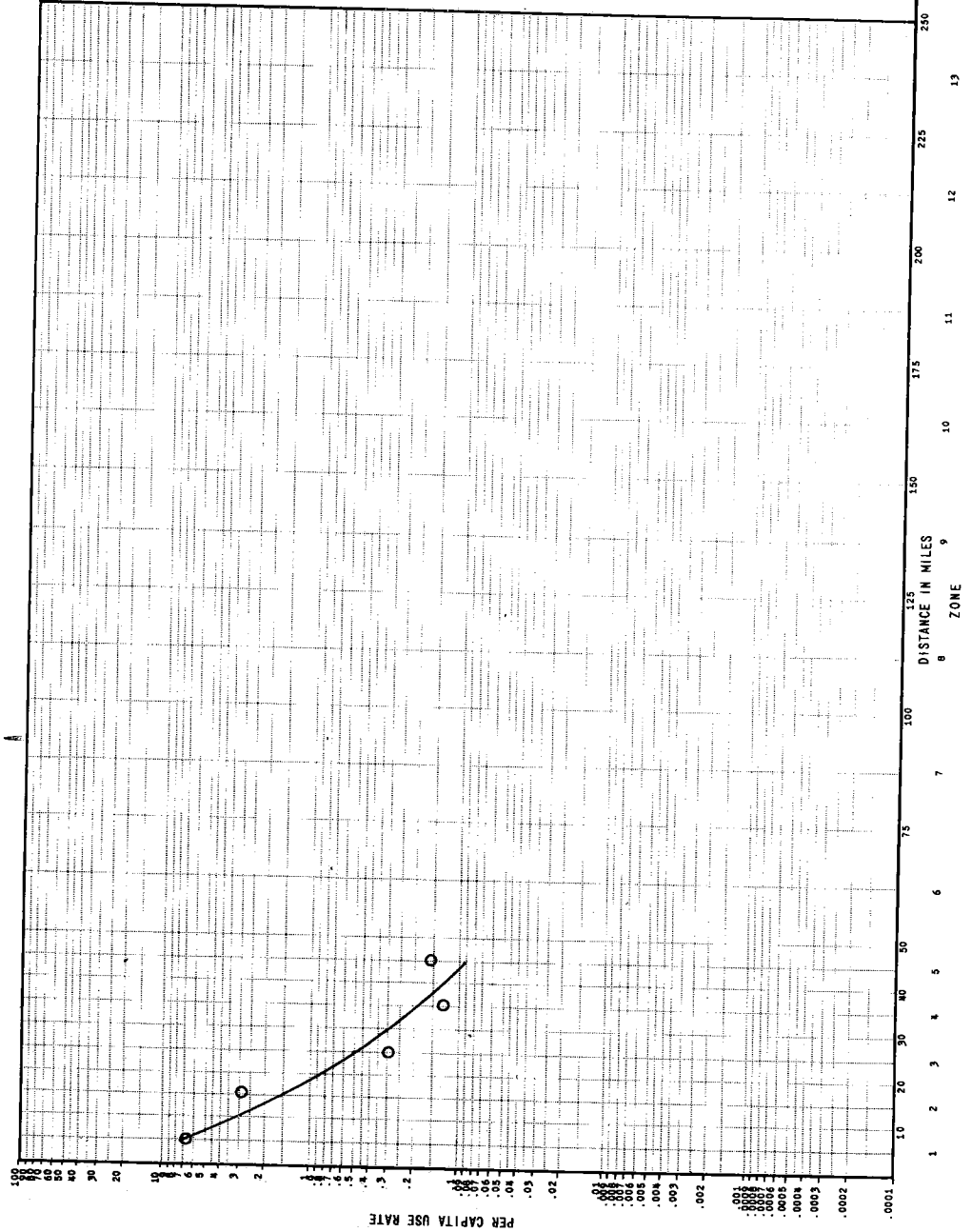
— REGRESSION ESTIMATE

REGRESSION EQUATION:
 $Y = \text{Exp}(4.256897 - .980675 X^{.5})$

$R^2 = .92$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 7.8778 | 4,250 |
| 2 | 1.5822 | 51,900 |
| 3 | .5239 | 314,120 |
| 4 | .2134 | 86,490 |
| 5 | .0982 | 50,820 |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

— REGRESSION ESTIMATE
Z/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1969

DISTRICT: TULSA
PROJECT: HULAH

LEGEND

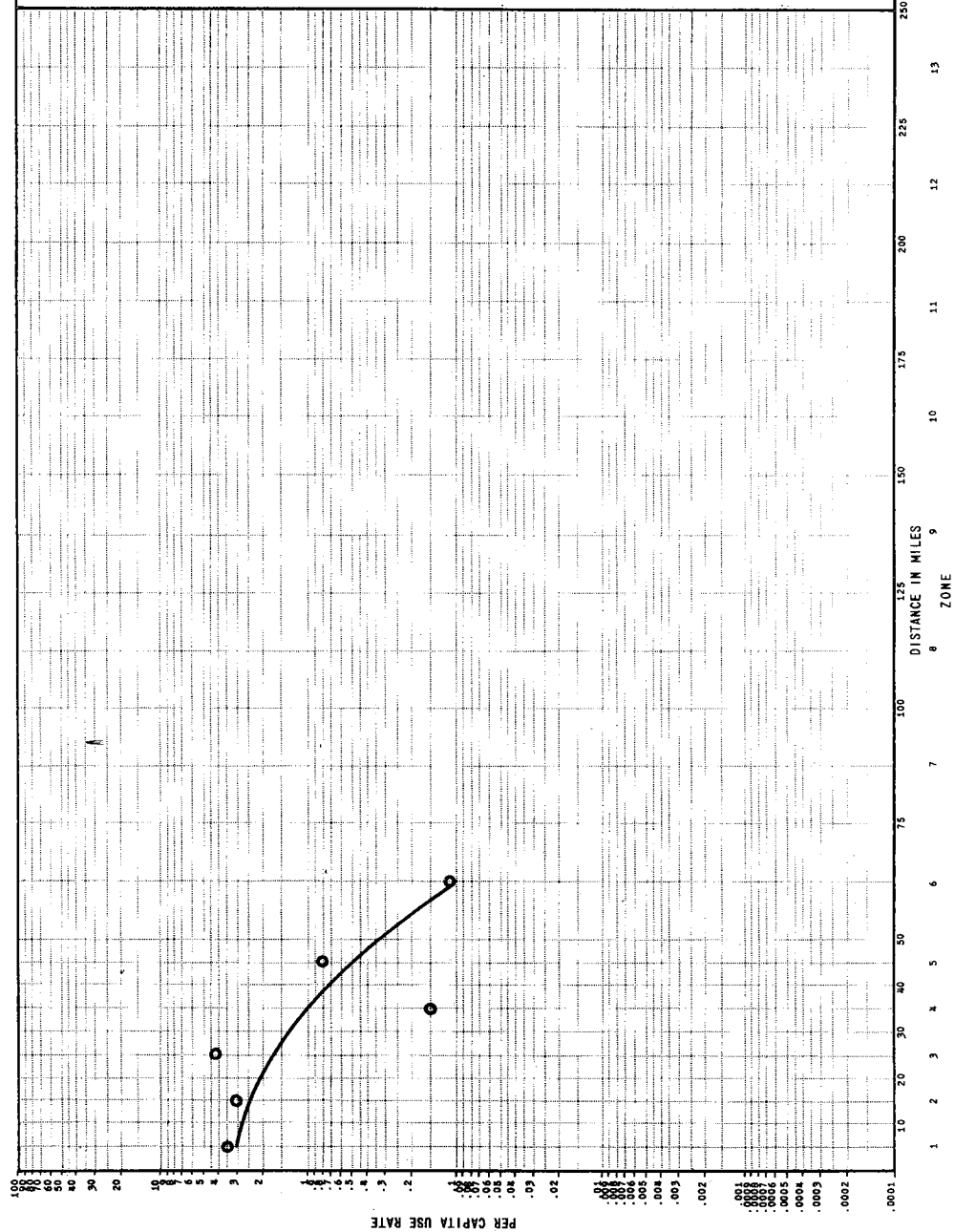
SURVEY ESTIMATE

REGRESSION ESTIMATE

REGRESSION EQUATION:
 $Y = \text{Exp}(1.130415 - .000892 X^2)$

$R^2 = .55$

| ZONE | PER CAPITA USE RATE | 1/ REGRESSION ESTIMATE | ZONAL POPULATION | 2/ ESTIMATED 1965 POPULATION |
|------|------------------------|---------------------------|---------------------|---------------------------------|
| 1 | 3.0280 | | 2,520 | |
| 2 | 2.5335 | | 19,220 | |
| 3 | 1.7728 | | 45,730 | |
| 4 | 1.0377 | | 51,600 | |
| 5 | .5082 | | 23,750 | |
| 6 | .0948 | | 350,600 | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |
| 11 | | | | |
| 12 | | | | |
| 13 | | | | |



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT
RECREATION USE

PER CAPITA USE RATES
1966 - 1969

DISTRICT: TULSA
PROJECT: KEYSTONE

LEGEND

O SURVEY ESTIMATE
— REGRESSION ESTIMATE

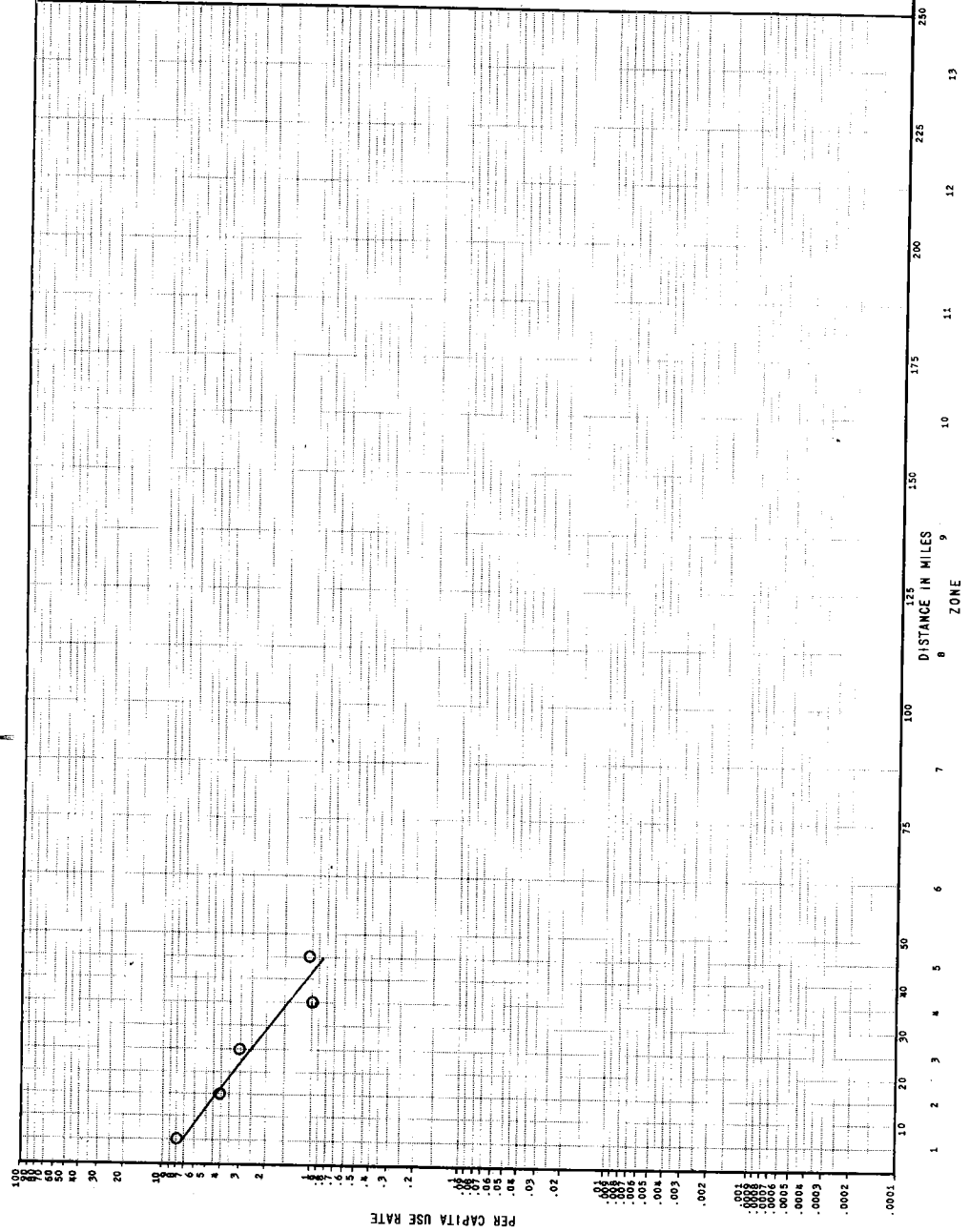
REGRESSION EQUATION:

$$Y = \text{Exp}(2.211905 - .053463 X)$$

$$R^2 = .98$$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 6.9908 | 28,950 |
| 2 | 4.0958 | 188,080 |
| 3 | 2.3997 | 187,520 |
| 4 | 1.4059 | 49,260 |
| 5 | .8237 | 92,820 |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

1/REGRESSION ESTIMATE
2/ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT

RECREATION USE

PER CAPITA USE RATES
1966 - 1969

DISTRICT: TULSA
PROJECT: OOLOGAH

LEGEND

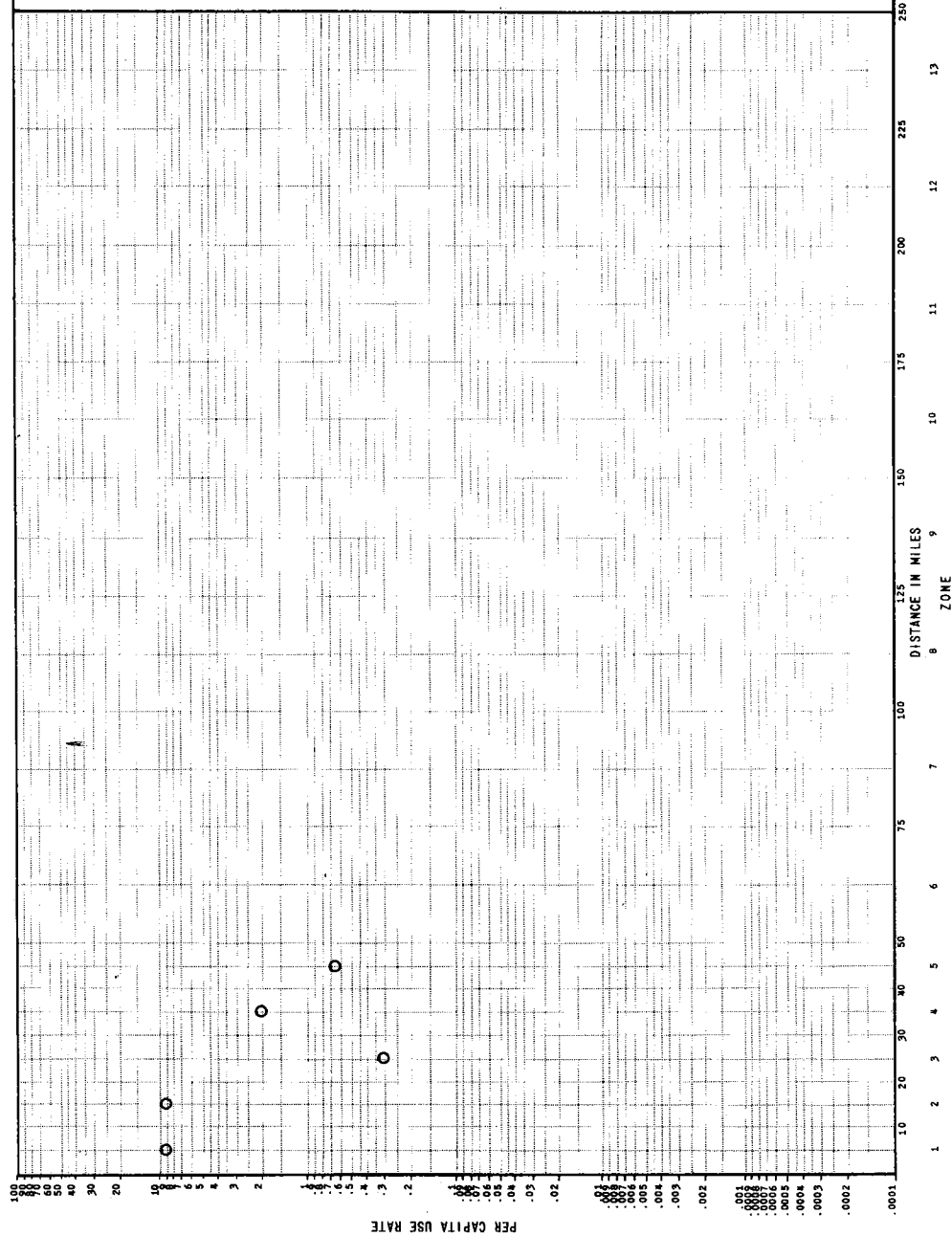
O SURVEY ESTIMATE
— REGRESSION ESTIMATE
REGRESSION EQUATION:

R² = .

| ZONE | PER CAPITA USE RATE | ZONAL Σ POPULATION |
|------|------------------------|------------------------------|
| 1 | | 12,840 |
| 2 | | 28,800 |
| 3 | | 217,750 |
| 4 | | 222,820 |
| 5 | | 92,980 |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

— REGRESSION ESTIMATE

Σ /ESTIMATED 1965 POPULATION



PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT

RECREATION USE

PER CAPITA USE RATES
1966 - 1969

DISTRICT: TULSA

PROJECT: TENKILLER

LEGEND

○ SURVEY ESTIMATE
— REGRESSION ESTIMATE

REGRESSION EQUATION:

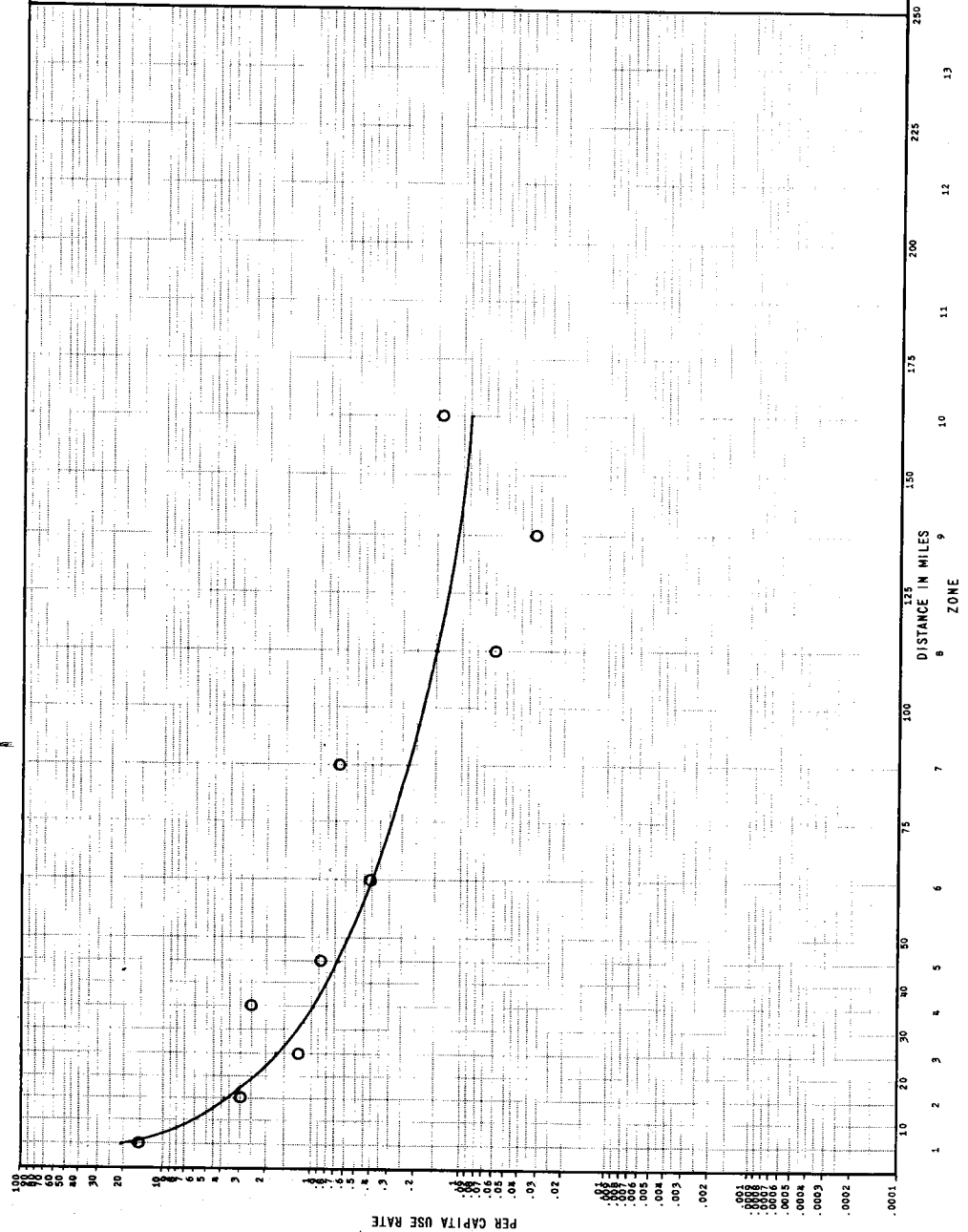
$$Y = \text{Exp}(5.572918 - 1.576064 \text{ LNX})$$

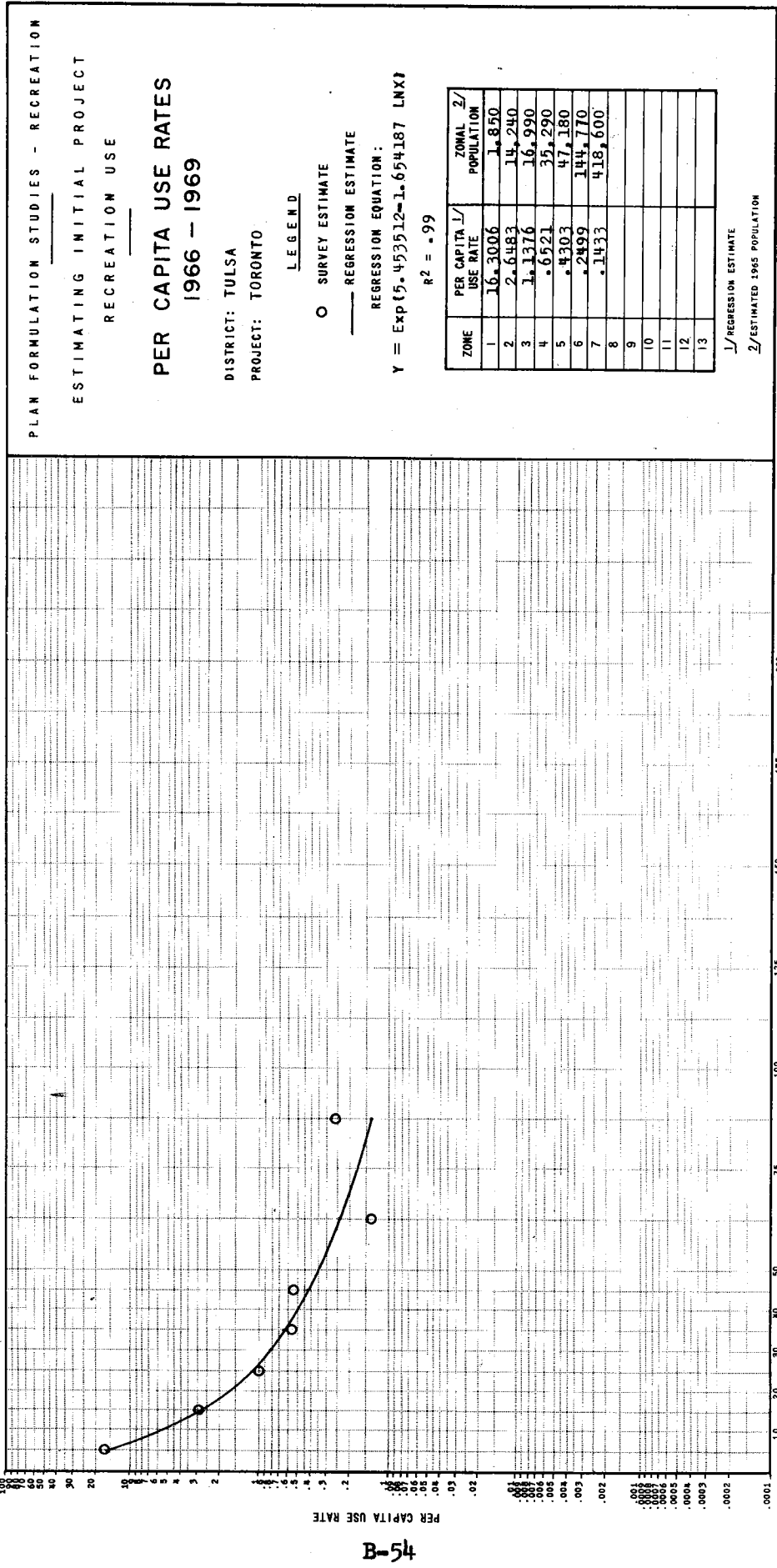
$$R^2 = .81$$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 20.8289 | 6,580 |
| 2 | 3.6872 | 23,940 |
| 3 | 1.6484 | 61,510 |
| 4 | .9700 | 42,200 |
| 5 | .6528 | 97,360 |
| 6 | .3890 | 714,820 |
| 7 | .2289 | 298,100 |
| 8 | .1541 | 511,900 |
| 9 | .1123 | 794,100 |
| 10 | .0863 | 836,000 |
| 11 | | |
| 12 | | |
| 13 | | |

1/ REGRESSION ESTIMATE

2/ ESTIMATED 1965 POPULATION





PLAN FORMULATION STUDIES - RECREATION
 ESTIMATING INITIAL PROJECT
 RECREATION USE

PER CAPITA USE RATES 1966 - 1969

DISTRICT: TULSA
 PROJECT: TORONTO

LEGEND

O SURVEY ESTIMATE
 — REGRESSION ESTIMATE

REGRESSION EQUATION:
 $Y = \text{Exp} \{5.453512 - 1.654187 \text{ LN} X\}$
 $R^2 = .99$

1/REGRESSION ESTIMATE
 2/ESTIMATED 1965 POPULATION

PLAN FORMULATION STUDIES - RECREATION

ESTIMATING INITIAL PROJECT

RECREATION USE

PER CAPITA USE RATES 1966 - 1969

DISTRICT: TULSA

PROJECT: WISTER

LEGEND

O SURVEY ESTIMATE

— REGRESSION ESTIMATE

REGRESSION EQUATION:

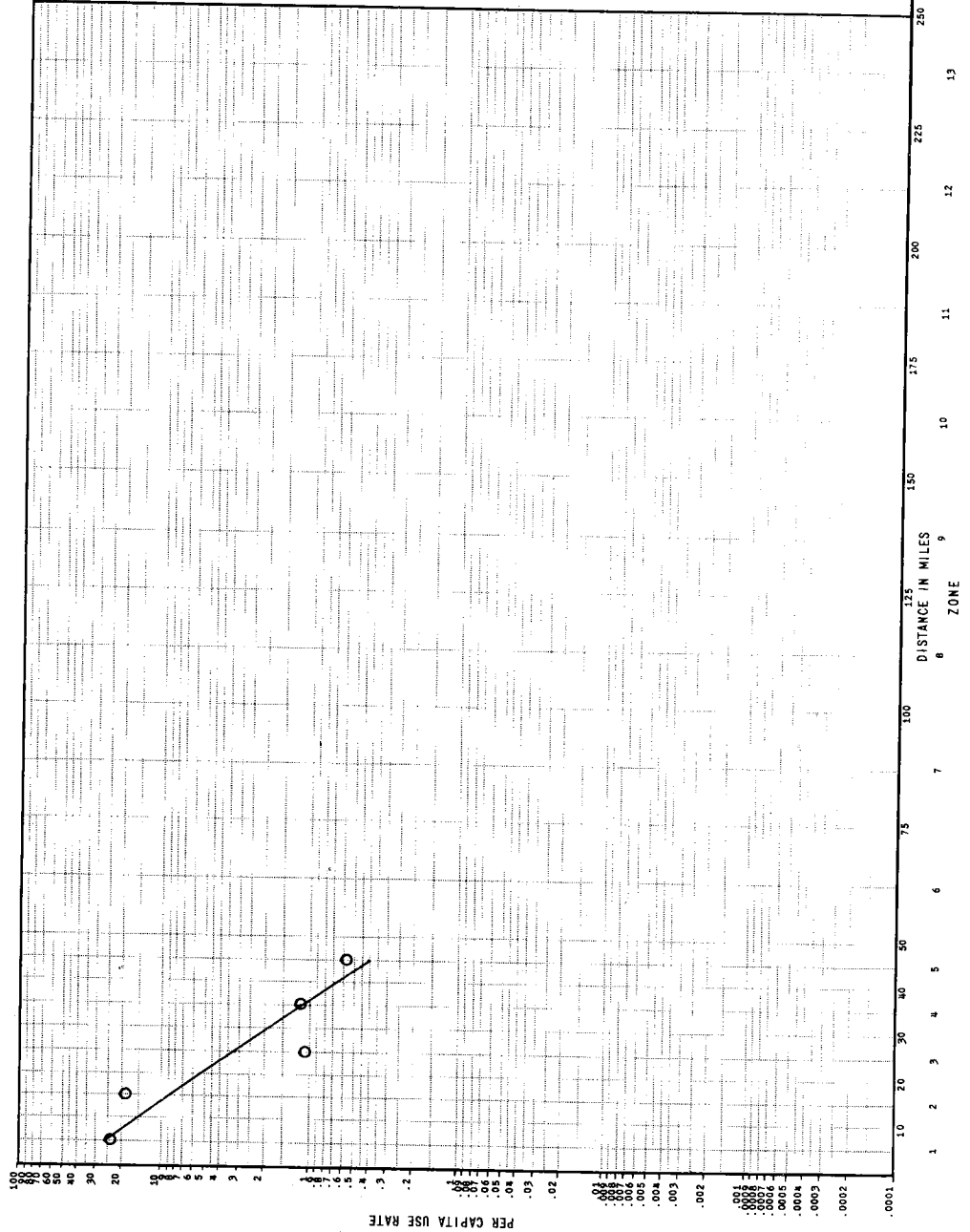
$$Y = \text{Exp}(3.744446 - .102871 \times X)$$

$$R^2 = .79$$

| ZONE | PER CAPITA USE RATE | ZONAL POPULATION |
|------|------------------------|---------------------|
| 1 | 25.2820 | 6,520 |
| 2 | 9.0375 | 11,520 |
| 3 | 3.2307 | 15,800 |
| 4 | 1.1549 | 30,720 |
| 5 | .4129 | 81,930 |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

— REGRESSION ESTIMATE

2/ESTIMATED 1965 POPULATION



PLAN FORMULATION AND EVALUATION STUDIES
RECREATION

SUPPLEMENT NO. 1
SUPPLEMENTAL RESERVOIR RECREATION USE DATA - 1969

TO
TECHNICAL REPORT NO. 2
ESTIMATING INITIAL RESERVOIR RECREATION USE

APPENDIX C
RECREATION USE DATA SUMMARIES

FEBRUARY 1971

RECREATION USE DATA SUMMARIES

| <u>District</u> | <u>Page No.</u> |
|-----------------|-----------------|
| Fort Worth | C-3 and C-4 |
| Little Rock | C-5 |
| Nashville | C-6 |
| Portland | C-7 |
| Sacramento | C-8 |
| Savannah | C-9 |
| Tulsa | C-10 and C-11 |

| PLAN FORMULATION STUDIES - RECREATION | | | | | | | | | | | | | | RECREATION USE DATA SUMMARY | | | | | | | | | | | | | |
|---------------------------------------|-------------------------|-------|-------|-------|--------------------------|-----|------|--------|----------------------------|-----|------|--------|---------------------------------|-----------------------------|------|--------|----------------------------------|-----|------|--------|-------------|-----|------|--------|--|--|--|
| PROJECT | NO. OF PERSONS SURVEYED | | | | % OF VISITORS ON WEEKEND | | | | NO. OF PERSONS PER VEHICLE | | | | % OF VEHICLES WITH BOAT-TRAILER | | | | % OF VEHICLES WITH HOUSE-TRAILER | | | | FISHING (%) | | | | | | |
| | SP | SUM | FALL | TOTAL | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | | | |
| 1. BELTON | 829 | 767 | 507 | 2,103 | 47 | 69 | 74 | 62 | 2.5 | 2.6 | 2.5 | 2.5 | 26 | 19 | 15 | 21 | 0 | 0 | 1 | 0 | 59 | 32 | 49 | 47 | | | |
| 2. BENBROOK | 2,979 | 1,991 | 1,227 | 6,197 | 66 | 53 | 69 | 62 | 2.8 | 2.7 | 2.2 | 2.6 | 31 | 19 | 15 | 24 | 2 | 1 | 2 | 2 | 53 | 27 | 51 | 44 | | | |
| 3. CANYON | 3,031 | 3,051 | 1,843 | 7,925 | 82 | 50 | 72 | 68 | 2.9 | 3.5 | 2.8 | 3.1 | 24 | 19 | 24 | 22 | 3 | 6 | 3 | 4 | 54 | 26 | 50 | 43 | | | |
| 4. DAM B | 700 | 595 | 578 | 1,873 | 71 | 63 | 68 | 68 | 2.6 | 3.1 | 2.6 | 2.7 | 24 | 21 | 2 | 16 | 4 | 7 | 1 | 4 | 72 | 47 | 45 | 56 | | | |
| 5. GARZA-LITTLE ELM | 1,968 | 2,025 | 825 | 4,818 | 76 | 72 | 80 | 75 | 2.7 | 2.9 | 2.4 | 2.7 | 26 | 34 | 19 | 28 | 5 | 2 | 6 | 4 | 44 | 19 | 43 | 34 | | | |
| 6. GRAPEVINE | 2,789 | 2,958 | 777 | 6,524 | 77 | 65 | 68 | 71 | 2.6 | 2.8 | 2.2 | 2.6 | 22 | 22 | 13 | 21 | 1 | 0 | 0 | 0 | 49 | 21 | 39 | 36 | | | |
| 7. HORDS CREEK | 331 | 535 | 154 | 1,020 | 73 | 64 | 69 | 68 | 2.8 | 3.3 | 2.4 | 3.0 | 20 | 12 | 14 | 15 | 3 | 7 | 13 | 7 | 58 | 26 | 47 | 40 | | | |
| 8. LAVON | 1,991 | 1,763 | 248 | 4,002 | 72 | 72 | 71 | 72 | 2.8 | 3.0 | 2.4 | 2.7 | 26 | 24 | 16 | 22 | 0 | 2 | 0 | 1 | 42 | 24 | 39 | 35 | | | |
| 9. NAVARRO MILLS | 1,532 | 1,750 | 905 | 4,187 | 76 | 60 | 55 | 65 | 3.0 | 3.2 | 2.9 | 3.1 | 50 | 46 | 52 | 49 | 3 | 2 | 1 | 2 | 82 | 60 | 81 | 73 | | | |
| 10. PROCTOR | 725 | 1,167 | 231 | 2,123 | 77 | 56 | 52 | 63 | 2.6 | 3.3 | 2.4 | 2.9 | 17 | 21 | 9 | 18 | 2 | 2 | 1 | 2 | 58 | 25 | 31 | 38 | | | |
| 11. SAN ANGELO | 415 | 238 | 270 | 923 | 65 | 56 | 60 | 61 | 2.5 | 2.7 | 2.1 | 2.4 | 2 | 1 | 0 | 1 | 0 | 5 | 2 | 2 | 40 | 35 | 0 | 26 | | | |
| 12. WHITNEY | 804 | 698 | 517 | 2,019 | 67 | 55 | 64 | 63 | 2.8 | 3.6 | 2.7 | 3.0 | 28 | 43 | 22 | 31 | 2 | 2 | 3 | 2 | 75 | 68 | 64 | 70 | | | |
| DISTRICT WT AVERAGE | | | | | 73 | 61 | 69 | 68 | 2.7 | 3.0 | 2.5 | 2.8 | 27 | 25 | 19 | 24 | 2 | 2 | 2 | 2 | 55 | 28 | 47 | 43 | | | |

| PROJECT | PICNICKING (%) | | | | SWIMMING (%) | | | | WATER SKIING (%) | | | | PLEASURE BOATING (%) | | | | SIGHTSEEING (%) | | | | OTHERS (%) | | | |
|---------------------|----------------|-----|------|--------|--------------|-----|------|--------|------------------|-----|------|--------|----------------------|-----|------|--------|-----------------|-----|------|--------|------------|-----|------|--------|
| | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG |
| 1. BELTON | 21 | 23 | 30 | 24 | 2 | 37 | 0 | 14 | 0 | 6 | 0 | 2 | 1 | 2 | 1 | 1 | 28 | 22 | 33 | 27 | 1 | 0 | 0 | 0 |
| 2. BENBROOK | 23 | 27 | 7 | 21 | 3 | 49 | 0 | 17 | 3 | 16 | 0 | 6 | 4 | 5 | 2 | 4 | 18 | 11 | 35 | 20 | 2 | 4 | 3 | 3 |
| 3. CANYON | 38 | 19 | 28 | 29 | 10 | 37 | 5 | 18 | 7 | 17 | 3 | 9 | 5 | 6 | 5 | 5 | 18 | 27 | 28 | 24 | 2 | 5 | 3 | 3 |
| 4. DAM B | 12 | 9 | 10 | 10 | 2 | 6 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 38 | 29 | 26 | 1 | 3 | 4 | 3 |
| 5. GARZA-LITTLE ELM | 22 | 18 | 10 | 18 | 3 | 38 | 0 | 16 | 6 | 22 | 0 | 11 | 23 | 24 | 29 | 25 | 11 | 9 | 13 | 11 | 2 | 5 | 6 | 4 |
| 6. GRAPEVINE | 16 | 13 | 5 | 13 | 5 | 42 | 0 | 20 | 6 | 23 | 0 | 12 | 10 | 11 | 4 | 10 | 12 | 7 | 24 | 12 | 13 | 12 | 30 | 15 |
| 7. HORDS CREEK | 31 | 24 | 10 | 24 | 3 | 43 | 0 | 22 | 2 | 16 | 0 | 8 | 1 | 0 | 0 | 0 | 17 | 12 | 31 | 17 | 0 | 4 | 4 | 3 |
| 8. LAVON | 21 | 18 | 15 | 18 | 0 | 29 | 0 | 9 | 2 | 9 | 0 | 4 | 12 | 9 | 4 | 9 | 18 | 12 | 13 | 15 | 18 | 17 | 32 | 22 |
| 9. NAVARRO MILLS | 17 | 31 | 36 | 27 | 1 | 30 | 0 | 12 | 3 | 14 | 0 | 7 | 1 | 0 | 1 | 1 | 11 | 11 | 11 | 11 | 0 | 1 | 2 | 1 |
| 10. PROCTOR | 26 | 17 | 17 | 20 | 2 | 53 | 0 | 27 | 2 | 20 | 1 | 11 | 4 | 0 | 2 | 2 | 24 | 23 | 44 | 26 | 2 | 1 | 2 | 1 |
| 11. SAN ANGELO | 10 | 7 | 3 | 7 | 5 | 10 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 48 | 50 | 71 | 56 | 3 | 3 | 22 | 9 |
| 12. WHITNEY | 12 | 15 | 3 | 10 | 1 | 16 | 0 | 5 | 1 | 8 | 0 | 3 | 0 | 0 | 0 | 0 | 3 | 1 | 19 | 7 | 1 | 2 | 1 | 1 |
| DISTRICT WT AVERAGE | 22 | 19 | 16 | 20 | 4 | 37 | 1 | 15 | 4 | 16 | 1 | 8 | 7 | 7 | 5 | 7 | 16 | 15 | 25 | 18 | 5 | 6 | 11 | 7 |

| PLAN FORMULATION STUDIES - RECREATION | | | | | | | | | | | | RECREATION USE DATA SUMMARY | | | | | | | | | | | | | |
|---------------------------------------|-------------------------|-----|------|--------|----------------------|-----|------|--------|---|-----|------|-----------------------------|---|-----|------|--------|---|-----|------|--------|--|-----|------|--------|-----|
| PROJECT | CAMPING ON PROJECT (\$) | | | | STAYING IN AREA (\$) | | | | CAMPING ON PROJ. AND STAYING IN AREA (\$) | | | | AVG. DURATION OF VISIT CAMPING ON PROJ (Days) | | | | AVG. DURATION OF VISIT STAYING IN AREA (Days) | | | | AVG. DURATION OF VISIT DAY USE (Hours) | | | | |
| | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | |
| 1. BELTON | 4 | 3 | 4 | 4 | 0 | 0 | 0 | 0 | 4 | 3 | 4 | 4 | 2.0 | 2.0 | 2.0 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.9 | 2.9 | 2.9 | 2.7 | 2.8 |
| 2. BENBROOK | 10 | 10 | 13 | 11 | 0 | 0 | 0 | 0 | 10 | 10 | 13 | 11 | 3.7 | 3.7 | 2.1 | 3.3 | 0.0 | 0.0 | 0.0 | 0.0 | 4.0 | 3.1 | 2.7 | 3.4 | |
| 3. CANYON | 19 | 23 | 20 | 21 | 0 | 0 | 0 | 0 | 19 | 23 | 20 | 21 | 2.3 | 4.5 | 2.5 | 3.1 | 0.0 | 2.7 | 0.0 | 2.7 | 4.6 | 3.5 | 3.6 | 4.0 | |
| 4. DAM B | 34 | 21 | 8 | 22 | 0 | 0 | 1 | 0 | 34 | 21 | 9 | 22 | 3.4 | 3.8 | 2.4 | 3.2 | 0.0 | 0.0 | 7.0 | 7.0 | 3.4 | 2.4 | 2.7 | 2.9 | |
| 5. GARZA-LITTLE ELM | 17 | 11 | 13 | 14 | 0 | 0 | 0 | 0 | 17 | 11 | 13 | 14 | 2.4 | 2.5 | 2.0 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 3.7 | 4.0 | 3.7 | 3.8 | |
| 6. GRAPEVINE | 10 | 9 | 1 | 8 | 0 | 0 | 0 | 0 | 10 | 9 | 1 | 8 | 2.0 | 2.1 | 2.4 | 2.1 | 2.0 | 0.0 | 0.0 | 2.0 | 3.2 | 3.1 | 2.1 | 3.0 | |
| 7. HORDS CREEK | 19 | 34 | 26 | 27 | 0 | 0 | 0 | 0 | 19 | 34 | 26 | 27 | 2.8 | 4.2 | 3.1 | 3.5 | 0.0 | 0.0 | 0.0 | 0.0 | 3.9 | 4.0 | 2.8 | 3.7 | |
| 8. LAVON | 11 | 13 | 4 | 10 | 0 | 0 | 0 | 0 | 11 | 13 | 4 | 10 | 2.4 | 2.5 | 2.0 | 2.3 | 0.0 | 0.0 | 0.0 | 0.0 | 4.6 | 4.3 | 3.1 | 4.0 | |
| 9. NAVARRO MILLS | 35 | 31 | 21 | 30 | 0 | 0 | 1 | 0 | 35 | 31 | 22 | 30 | 2.4 | 2.7 | 2.9 | 2.6 | 0.0 | 0.0 | 2.9 | 2.9 | 4.6 | 4.0 | 4.1 | 4.2 | |
| 10. PROCTOR | 19 | 17 | 21 | 18 | 0 | 0 | 0 | 0 | 19 | 17 | 21 | 18 | 3.1 | 3.6 | 4.1 | 3.5 | 0.0 | 0.0 | 0.0 | 0.0 | 3.6 | 3.2 | 2.1 | 3.2 | |
| 11. SAN ANGELO | 4 | 8 | 3 | 5 | 0 | 0 | 0 | 0 | 4 | 8 | 3 | 5 | 2.0 | 3.1 | 2.0 | 2.3 | 0.0 | 0.0 | 0.0 | 0.0 | 2.5 | 2.0 | 1.7 | 2.1 | |
| 12. WHITNEY | 44 | 56 | 26 | 42 | 0 | 0 | 0 | 0 | 44 | 56 | 26 | 42 | 2.5 | 3.0 | 2.6 | 2.7 | 0.0 | 0.0 | 0.0 | 0.0 | 5.4 | 4.7 | 3.9 | 4.8 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| DISTRICT WT AVERAGE | 17 | 17 | 12 | 16 | 0 | 0 | 0 | 0 | 17 | 17 | 12 | 16 | 2.6 | 3.1 | 2.3 | 2.7 | 2.0 | 2.7 | 4.6 | 2.8 | 4.0 | 3.5 | 3.1 | 3.6 | |

DISTRICT: FORT WORTH

YEAR: 1969

| PLAN FORMULATION STUDIES - RECREATION | | | | | | | | | | RECREATION USE DATA SUMMARY | | | | | | | | | | | | | | |
|---------------------------------------|-------------------------|-------|-------|--------------------------|------|-----|----------------------------|------|--------|---------------------------------|------|--------|----------------------------------|------|--------|-------------|------|--------|----|----|----|----|----|----|
| PROJECT | NO. OF PERSONS SURVEYED | | | % OF VISITORS ON WEEKEND | | | NO. OF PERSONS PER VEHICLE | | | % OF VEHICLES WITH BOAT-TRAILER | | | % OF VEHICLES WITH HOUSE-TRAILER | | | FISHING (%) | | | | | | | | |
| | SP | FALL | TOTAL | SP | FALL | SUM | SP | FALL | WT AVG | SP | FALL | WT AVG | SP | FALL | WT AVG | SP | FALL | WT AVG | | | | | | |
| 1. BEAVER | 1,157 | 1,452 | 668 | 3,277 | 49 | 45 | 48 | 47 | 2.4 | 2.9 | 2.3 | 2.6 | 33 | 22 | 24 | 26 | 3 | 4 | 66 | 52 | 55 | 58 | | |
| 2. BULL SHOALS | 971 | 2,998 | 1,377 | 5,346 | 52 | 47 | 57 | 51 | 2.3 | 3.1 | 2.3 | 2.6 | 10 | 12 | 8 | 10 | 2 | 4 | 1 | 3 | 62 | 25 | 35 | 40 |
| 3. GREERS FERRY | 1,903 | 3,313 | 591 | 5,807 | 70 | 62 | 68 | 66 | 2.8 | 3.4 | 2.4 | 3.1 | 12 | 11 | 17 | 12 | 3 | 7 | 1 | 5 | 48 | 27 | 38 | 36 |
| 4. NORFORK | 1,615 | 3,028 | 901 | 5,544 | 55 | 45 | 48 | 49 | 2.5 | 3.3 | 2.3 | 2.8 | 12 | 7 | 9 | 9 | 1 | 1 | 1 | 1 | 55 | 22 | 37 | 36 |
| 5. TABLE ROCK | 1,953 | 3,427 | 1,195 | 6,575 | 46 | 48 | 51 | 48 | 2.6 | 3.5 | 2.4 | 3.0 | 24 | 19 | 17 | 20 | 1 | 8 | 4 | 5 | 71 | 43 | 52 | 54 |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| DISTRICT WT AVERAGE | | | | | 54 | 50 | 54 | 52 | 2.5 | 3.3 | 2.3 | 2.8 | 17 | 13 | 14 | 14 | 2 | 5 | 2 | 3 | 60 | 32 | 43 | 44 |

| PROJECT | PICNICKING (%) | | | SWIMMING (%) | | | WATER SKIING (%) | | | PLEASURE BOATING (%) | | | SIGHTSEEING (%) | | | OTHERS (%) | | | | | | | | |
|---------------------|----------------|-----|------|--------------|----|-----|------------------|--------|----|----------------------|------|--------|-----------------|-----|------|------------|----|-----|------|--------|---|---|----|---|
| | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | | | | |
| 1. BEAVER | 10 | 9 | 10 | 10 | 0 | 23 | 0 | 9 | 0 | 4 | 0 | 2 | 0 | 6 | 3 | 3 | 24 | 25 | 33 | 26 | 4 | 1 | 3 | 3 |
| 2. BULL SHOALS | 9 | 9 | 5 | 8 | 0 | 40 | 0 | 17 | 1 | 9 | 0 | 4 | 2 | 7 | 2 | 4 | 22 | 29 | 58 | 34 | 9 | 1 | 3 | 4 |
| 3. GREER'S FERRY | 12 | 12 | 0 | 10 | 3 | 53 | 0 | 28 | 2 | 16 | 1 | 9 | 9 | 7 | 5 | 7 | 33 | 27 | 59 | 33 | 0 | 0 | 0 | 0 |
| 4. NORFORK | 6 | 5 | 2 | 5 | 4 | 60 | 0 | 30 | 0 | 12 | 0 | 6 | 2 | 11 | 6 | 7 | 35 | 21 | 55 | 32 | 0 | 0 | 0 | 0 |
| 5. TABLE ROCK | 32 | 16 | 21 | 22 | 0 | 43 | 0 | 19 | 0 | 13 | 0 | 6 | 6 | 9 | 8 | 8 | 15 | 14 | 29 | 18 | 5 | 7 | 14 | 8 |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| DISTRICT WT AVERAGE | 14 | 10 | 8 | 11 | 1 | 44 | 0 | 20 | 1 | 12 | 0 | 6 | 4 | 8 | 5 | 6 | 25 | 23 | 47 | 29 | 4 | 2 | 5 | 3 |

| PROJECT | CAMPING ON PROJECT (%) | | | | STAYING IN AREA (%) | | | | CAMPING ON PROJ. AND STAYING IN AREA (%) | | | | AVG. DURATION OF VISIT STAYING IN AREA (Days) | | | | AVG. DURATION OF VISIT DAY USE (Hours) | | | | | | | | |
|---------------------|---------------------------|----|------|----|------------------------|----|-----|----|---|----|------|----|--|-----|-----|-----|---|-----|------|-----|-----|-----|-----|-----|-----|
| | SUM | | FALL | | WT | | AVG | | SUM | | FALL | | WT | | AVG | | SUM | | FALL | | WT | | AVG | | |
| | SP | | | | SP | | | | SP | | | | SP | | | | SP | | | | SP | | | | |
| 1. BEAVER | | 6 | 28 | 9 | 15 | 12 | 22 | 20 | 18 | 18 | 50 | 29 | 33 | 4.4 | 4.6 | 3.0 | 4.2 | 4.8 | 5.1 | 3.8 | 4.7 | 3.5 | 3.1 | 3.4 | 3.3 |
| 2. BULL SHOALS | | 16 | 20 | 4 | 15 | 28 | 19 | 18 | 22 | 44 | 39 | 22 | 36 | 5.0 | 5.6 | 3.5 | 4.9 | 5.3 | 6.3 | 4.9 | 5.6 | 4.3 | 2.8 | 2.5 | 3.2 |
| 3. GREERS FERRY | | 29 | 41 | 8 | 32 | 3 | 2 | 18 | 4 | 32 | 43 | 26 | 37 | 3.9 | 3.5 | 3.4 | 3.6 | 2.4 | 2.6 | 3.0 | 2.6 | 3.8 | 2.9 | 2.8 | 3.2 |
| 4. NORFORK | | 9 | 26 | 4 | 16 | 12 | 17 | 25 | 17 | 21 | 43 | 29 | 33 | 4.5 | 6.2 | 4.9 | 5.4 | 7.8 | 7.8 | 8.6 | 8.0 | 3.5 | 3.1 | 2.6 | 3.1 |
| 5. TABLE ROCK | | 9 | 30 | 13 | 19 | 10 | 15 | 41 | 19 | 19 | 45 | 54 | 38 | 4.7 | 5.9 | 3.2 | 4.9 | 3.8 | 5.8 | 4.4 | 4.8 | 5.5 | 4.9 | 4.0 | 4.9 |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| DISTRICT WT AVERAGE | 14 | 29 | 7 | 19 | 14 | 14 | 25 | 16 | 28 | 43 | 32 | 36 | 4.5 | 5.2 | 3.6 | 4.6 | 4.8 | 5.5 | 5.1 | 5.2 | 4.2 | 3.4 | 3.0 | 3.6 | 3.6 |

DISTRICT: LITTLE ROCK

YEAR: 1969

| PLAN FORMULATION STUDIES - RECREATION | | | | | | | | | | | | | | RECREATION USE DATA SUMMARY | | | | | | | | | | | | | |
|---------------------------------------|-------------------------|-------|------|-------|--------------------------|------|--------|----|----------------------------|-----|------|--------|---------------------------------|-----------------------------|-----|------|----------------------------------|----|----|-----|-------------|--------|----|----|--|--|--|
| PROJECT | NO. OF PERSONS SURVEYED | | | | % OF VISITORS ON WEEKEND | | | | NO. OF PERSONS PER VEHICLE | | | | % OF VEHICLES WITH BOAT-TRAILER | | | | % OF VEHICLES WITH HOUSE-TRAILER | | | | FISHING (%) | | | | | | |
| | SP | SUM | FALL | TOTAL | SP | FALL | WT AVG | | SP | SUM | FALL | WT AVG | | SP | SUM | FALL | WT AVG | | SP | SUM | FALL | WT AVG | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. LAKE CUMBERLAND | 1,379 | 1,992 | 544 | 3,915 | 57 | 54 | 51 | 54 | 3.1 | 3.7 | 2.5 | 3.3 | 26 | 25 | 20 | 24 | 2 | 7 | 3 | 4 | 46 | 24 | 45 | 36 | | | |
| 2. DALE HOLLOW | 1,102 | 993 | 305 | 2,400 | 58 | 46 | 48 | 52 | 3.1 | 3.6 | 2.9 | 3.3 | 35 | 34 | 29 | 34 | 1 | 9 | 3 | 4 | 31 | 16 | 37 | 26 | | | |
| 3. CENTER HILL | 1,605 | 1,214 | 487 | 3,306 | 58 | 54 | 63 | 57 | 2.9 | 3.3 | 2.7 | 3.0 | 52 | 38 | 47 | 46 | 3 | 2 | 2 | 3 | 57 | 31 | 68 | 50 | | | |
| 4. OLD HICKORY | 748 | 964 | 210 | 1,922 | 62 | 64 | 61 | 63 | 2.4 | 2.9 | 2.1 | 2.6 | 41 | 21 | 28 | 30 | 2 | 10 | 1 | 5 | 62 | 31 | 53 | 47 | | | |
| 5. CHEATHAM | 512 | 400 | 179 | 1,091 | 59 | 51 | 54 | 55 | 3.1 | 2.9 | 2.8 | 3.0 | 20 | 23 | 8 | 19 | 0 | 0 | 0 | 0 | 56 | 47 | 42 | 50 | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DISTRICT WT AVERAGE | | | | | 58 | 54 | 55 | 56 | 2.9 | 3.4 | 2.6 | 3.1 | 38 | 28 | 29 | 32 | 2 | 6 | 2 | 4 | 50 | 27 | 51 | 41 | | | |

| PROJECT | PICNICKING (%) | | | | SWIMMING (%) | | | | WATER SKIING (%) | | | | PLEASURE BOATING (%) | | | | SIGHTSEEING (%) | | | | OTHERS (%) | | | |
|---------------------|----------------|------|--------|----|--------------|------|--------|----|------------------|------|--------|---|----------------------|------|--------|----|-----------------|------|--------|----|------------|------|--------|---|
| | SP | FALL | WT AVG | | SP | FALL | WT AVG | | SP | FALL | WT AVG | | SP | FALL | WT AVG | | SP | FALL | WT AVG | | SP | FALL | WT AVG | |
| | 19 | 11 | 7 | 13 | 16 | 42 | 0 | 25 | 2 | 12 | 0 | 6 | 20 | 29 | 14 | 23 | 19 | 12 | 34 | 18 | 0 | 0 | 1 | 0 |
| 1. LAKE CUMBERLAND | | | | | | | | | | | | | | | | | | | | | | | | |
| 2. DALE HOLLOW | 5 | 4 | 2 | 4 | 10 | 28 | 0 | 15 | 4 | 15 | 0 | 8 | 12 | 19 | 2 | 13 | 38 | 20 | 52 | 33 | 0 | 0 | 0 | 0 |
| 3. CENTER HILL | 9 | 13 | 0 | 9 | 12 | 21 | 0 | 13 | 2 | 5 | 0 | 3 | 12 | 26 | 9 | 16 | 13 | 10 | 13 | 12 | 0 | 0 | 1 | 0 |
| 4. OLD HICKORY | 12 | 13 | 4 | 11 | 4 | 28 | 0 | 14 | 0 | 9 | 0 | 4 | 9 | 14 | 7 | 11 | 16 | 12 | 36 | 17 | 1 | 0 | 0 | 0 |
| 5. CHEATHAM | 29 | 24 | 0 | 22 | 1 | 10 | 0 | 4 | 4 | 8 | 0 | 5 | 6 | 11 | 3 | 7 | 21 | 15 | 31 | 20 | 2 | 2 | 0 | 2 |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| DISTRICT WT AVERAGE | 13 | 12 | 3 | 11 | 10 | 29 | 0 | 16 | 2 | 10 | 0 | 5 | 13 | 22 | 8 | 16 | 20 | 13 | 31 | 19 | 0 | 0 | 1 | 0 |

| PROJECT | CAMPING ON PROJECT (%) | | | | STAYING IN AREA (%) | | | | CAMPING ON PROJ. AND STAYING IN AREA (%) | | | | AVG. DURATION OF VISIT CAMPING ON PROJ (Days) | | | | AVG. DURATION OF VISIT STAYING IN AREA (Days) | | | | AVG. DURATION OF VISIT DAY USE (Hours) | | | |
|---------------------|------------------------|------|--------|----|---------------------|------|--------|----|--|------|--------|----|---|------|--------|-----|---|------|--------|-----|--|------|--------|-----|
| | SP | FALL | WT AVG | | SP | FALL | WT AVG | | SP | FALL | WT AVG | | SP | FALL | WT AVG | | SP | FALL | WT AVG | | SP | FALL | WT AVG | |
| | 18 | 35 | 10 | 24 | 26 | 27 | 32 | 27 | 44 | 62 | 42 | 52 | 4.1 | 4.3 | 2.0 | 3.8 | 3.4 | 3.7 | 2.8 | 3.4 | 4.2 | 4.0 | 3.5 | 4.0 |
| 1. LAKE CUMBERLAND | | | | | | | | | | | | | | | | | | | | | | | | |
| 2. DALE HOLLOW | 20 | 42 | 8 | 26 | 10 | 12 | 6 | 10 | 30 | 54 | 14 | 37 | 5.8 | 7.4 | 3.9 | 6.1 | 4.1 | 6.7 | 5.1 | 5.2 | 2.5 | 3.6 | 2.6 | 2.9 |
| 3. CENTER HILL | 18 | 17 | 4 | 15 | 2 | 2 | 9 | 3 | 20 | 19 | 13 | 18 | 2.5 | 4.0 | 3.5 | 3.2 | 3.9 | 4.0 | 2.6 | 3.7 | 7.0 | 6.6 | 7.3 | 6.9 |
| 4. OLD HICKORY | 13 | 33 | 9 | 22 | 0 | 0 | 0 | 0 | 13 | 33 | 9 | 22 | 2.4 | 4.8 | 2.7 | 3.5 | 0.0 | 0.0 | 0.0 | 0.0 | 3.4 | 3.2 | 2.9 | 3.2 |
| 5. CHEATHAM | 7 | 2 | 0 | 4 | 2 | 6 | 7 | 4 | 9 | 8 | 7 | 8 | 2.2 | 2.0 | 0.0 | 2.1 | 2.0 | 2.7 | 3.4 | 2.5 | 3.4 | 3.8 | 2.8 | 3.4 |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| DISTRICT WT AVERAGE | 16 | 29 | 7 | 20 | 9 | 12 | 14 | 11 | 26 | 41 | 21 | 31 | 3.5 | 4.6 | 2.9 | 3.9 | 3.6 | 4.3 | 3.2 | 3.8 | 4.5 | 4.3 | 4.2 | 4.4 |

DISTRICT: NASHVILLE

YEAR: 1969

| PLAN FORMULATION STUDIES - RECREATION | | | | | | | | | | | | | | RECREATION USE DATA SUMMARY | | | | | | | | | | | | | |
|---------------------------------------|-------------------------|-------|------|-------|--------------------------|-----|------|--------|----------------------------|-----|------|--------|---------------------------------|-----------------------------|------|--------|----------------------------------|-----|------|--------|-------------|-----|------|--------|--|--|--|
| PROJECT | NO. OF PERSONS SURVEYED | | | | % OF VISITORS ON WEEKEND | | | | NO. OF PERSONS PER VEHICLE | | | | % OF VEHICLES WITH BOAT-TRAILER | | | | % OF VEHICLES WITH HOUSE-TRAILER | | | | FISHING (%) | | | | | | |
| | SP | SUM | FALL | TOTAL | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. COTTAGE GROVE | 1,971 | 1,297 | | 3,268 | 34 | 56 | | 42 | 3.4 | 3.6 | | 3.5 | 17 | 23 | | 19 | 0 | 0 | 0 | 0 | 2 | 0 | | 1 | | | |
| 2. DETROIT | 3,205 | 3,238 | | 6,443 | 66 | 55 | | 61 | 3.8 | 4.2 | | 4.0 | 28 | 20 | | 24 | 4 | 4 | 4 | 4 | 38 | 34 | | 36 | | | |
| 3. DORENA | 565 | 496 | | 1,061 | 42 | 51 | | 46 | 3.0 | 3.3 | | 3.1 | 23 | 23 | | 23 | 2 | 0 | 0 | 1 | 25 | 13 | | 20 | | | |
| 4. FERN RIDGE | 2,735 | 5,036 | | 7,771 | 62 | 57 | | 59 | 3.1 | 3.3 | | 3.2 | 11 | 10 | | 10 | 0 | 0 | 0 | 0 | 1 | 1 | | 1 | | | |
| 5. HILLS CREEK | 762 | | | 762 | 41 | | | 41 | 3.6 | | | 3.6 | 19 | | | 19 | 6 | | | 6 | 15 | | | 15 | | | |
| 6. LOOKOUT POINT | 641 | 1,180 | | 1,821 | 35 | 49 | | 44 | 3.3 | 3.4 | | 3.4 | 16 | 17 | | 17 | 2 | 0 | 0 | 1 | 7 | 2 | | 4 | | | |
| 7. THE DALLES | 1,733 | 2,195 | | 3,928 | 40 | 51 | | 46 | 3.4 | 3.4 | | 3.4 | 2 | 4 | | 3 | 8 | 8 | 8 | 7 | 6 | | | 6 | | | |
| DISTRICT WT AVERAGE | | | | | 51 | 54 | | 53 | 3.4 | 3.5 | | 3.5 | 16 | 13 | | 14 | 3 | 2 | 2 | 2 | 14 | 9 | | 11 | | | |

| PROJECT | PICNICKING (%) | | | | SWIMMING (%) | | | | WATER SKIING (%) | | | | PLEASURE BOATING (%) | | | | SIGHTSEEING (%) | | | | OTHERS (%) | | | |
|---------------------|----------------|--------|------|--------|--------------|----|----|-----|------------------|--------|----|-----|----------------------|--------|----|-----|-----------------|--------|----|-----|------------|--------|--|----|
| | SUM | | FALL | | WT AVG | | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | | |
| | SP | WT AVG | FALL | WT AVG | | | | | | | | | | | | | | | | | | | | |
| 1. COTTAGE GROVE | 27 | 37 | | 31 | 63 | 36 | | 53 | 19 | 29 | | 23 | 4 | 12 | | 7 | 7 | 11 | | 8 | 3 | 7 | | 4 |
| 2. DETROIT | 46 | 66 | | 56 | 48 | 59 | | 53 | 23 | 30 | | 26 | 7 | 2 | | 5 | 14 | 14 | | 14 | 0 | 1 | | 0 |
| 3. DORENA | 33 | 13 | | 24 | 27 | 18 | | 23 | 12 | 31 | | 21 | 13 | 7 | | 10 | 9 | 16 | | 12 | 6 | 13 | | 9 |
| 4. FERN RIDGE | 24 | 29 | | 27 | 29 | 46 | | 40 | 6 | 13 | | 10 | 19 | 8 | | 12 | 16 | 13 | | 14 | 13 | 11 | | 12 |
| 5. HILLS CREEK | 20 | | | 20 | 51 | | | 51 | 6 | | | 6 | 9 | | | 9 | 10 | | | 10 | 4 | | | 4 |
| 6. LOOKOUT POINT | 30 | 39 | | 36 | 35 | 39 | | 38 | 16 | 20 | | 19 | 19 | 24 | | 22 | 6 | 7 | | 7 | 27 | 5 | | 13 |
| 7. THE DALLES | 36 | 44 | | 40 | 23 | 21 | | 22 | 0 | 1 | | 1 | 1 | 1 | | 1 | 45 | 38 | | 41 | 0 | 0 | | 0 |
| DISTRICT WT AVERAGE | 32 | 40 | | 36 | 40 | 42 | | 41 | 12 | 17 | | 15 | 10 | 7 | | 8 | 17 | 17 | | 17 | 6 | 6 | | 6 |

| PROJECT | CAMPING ON PROJECT (%) | | | | STAYING IN AREA (%) | | | | CAMPING ON PROJ. AND STAYING IN AREA (%) | | | | AVG. DURATION OF VISIT CAMPING ON PROJ (Days) | | | | AVG. DURATION OF VISIT STAYING IN AREA (Days) | | | | AVG. DURATION OF VISIT DAY USE (Hours) | | | | |
|---------------------|---------------------------|--------|------|--------|------------------------|--------|------|--------|---|--------|------|--------|--|--------|------|--------|--|--------|------|--------|---|--------|------|--------|-----|
| | SUM | | FALL | | SUM | | FALL | | SUM | | FALL | | SUM | | FALL | | SUM | | FALL | | SUM | | FALL | | |
| | SP | WT AVG | FALL | WT AVG | SP | WT AVG | FALL | WT AVG | SP | WT AVG | FALL | WT AVG | SP | WT AVG | FALL | WT AVG | SP | WT AVG | FALL | WT AVG | SP | WT AVG | FALL | WT AVG | |
| 1. COTTAGE GROVE | 0 | 0 | | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0.0 | 0.0 | | 0.0 | 15.0 | 0.0 | | 15.0 | 2.8 | 3.4 | | 3.0 |
| 2. DETROIT | 11 | 15 | | 13 | 0 | 0 | | 0 | 11 | 15 | | 13 | 4.0 | 4.5 | | 4.2 | 4.9 | 0.0 | | 4.9 | 4.9 | 5.1 | | 5.0 | |
| 3. DORENA | 9 | 7 | | 8 | 0 | 0 | | 0 | 9 | 7 | | 8 | 3.3 | 9.9 | | 6.3 | 0.0 | 0.0 | | 0.0 | 3.0 | 3.0 | | 3.0 | |
| 4. FERN RIDGE | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0.0 | 0.0 | | 0.0 | 0.0 | 3.0 | | 3.0 | 2.0 | 2.6 | | 2.4 | |
| 5. HILLS CREEK | 24 | | | 24 | 0 | | | 0 | 24 | | | 24 | 3.5 | | | 3.5 | 0.0 | | | 0.0 | 3.0 | | | 3.0 | |
| 6. LOOKOUT POINT | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0.0 | 4.0 | | 4.0 | 0.0 | 0.0 | | 0.0 | 2.0 | 2.8 | | 2.5 | |
| 7. THE DALLES | 4 | 5 | | 5 | 0 | 0 | | 0 | 4 | 5 | | 5 | 2.0 | 2.3 | | 2.2 | 0.0 | 0.0 | | 0.0 | 2.2 | 2.0 | | 2.1 | |
| DISTRICT WT AVERAGE | 5 | 4 | | 4 | 0 | 0 | | 0 | 5 | 4 | | 4 | 3.1 | 4.1 | | 3.6 | 9.1 | 3.0 | | 6.0 | 3.0 | 3.1 | | 3.1 | |

DISTRICT: PORTLAND

YEAR: 1969

| PLAN FORMULATION STUDIES - RECREATION | | | | | | | | | | | | | | RECREATION USE DATA SUMMARY | | | | | | | | | | | | | |
|---------------------------------------|-------------------------|-------|------|-------|--------------------------|-----|------|--------|----------------------------|-----|------|--------|---------------------------------|-----------------------------|------|--------|----------------------------------|-----|------|--------|-------------|-----|------|--------|--|--|--|
| PROJECT | NO. OF PERSONS SURVEYED | | | | % OF VISITORS ON WEEKEND | | | | NO. OF PERSONS PER VEHICLE | | | | % OF VEHICLES WITH BOAT-TRAILER | | | | % OF VEHICLES WITH HOUSE-TRAILER | | | | FISHING (%) | | | | | | |
| | SP | SUM | FALL | TOTAL | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | | | |
| 1. BLACK BUTTE | | 1,191 | 62 | 1,253 | | 56 | 42 | 55 | | 3.2 | 2.0 | 3.1 | | 24 | 0 | 22 | | 4 | 0 | 4 | | 34 | 42 | 35 | | | |
| 2. ENGLEBRIGHT | | 809 | 224 | 1,033 | | 68 | 48 | 63 | | 3.1 | 3.1 | 3.1 | | 30 | 16 | 27 | | 0 | 0 | 0 | | 33 | 24 | 31 | | | |
| 3. ISABELLA | | 4,258 | 562 | 4,820 | | 64 | 57 | 63 | | 3.5 | 2.3 | 3.3 | | 24 | 10 | 22 | | 7 | 6 | 7 | | 74 | 93 | 77 | | | |
| 4. NEW HOGAN | | 2,008 | 117 | 2,125 | | 66 | 35 | 64 | | 3.3 | 2.4 | 3.2 | | 29 | 16 | 28 | | 2 | 14 | 3 | | 28 | 57 | 30 | | | |
| 5. PINE FLAT | | 2,186 | 28 | 2,214 | | 68 | 65 | 68 | | 3.1 | 1.9 | 3.1 | | 9 | 10 | 9 | | 0 | 0 | 0 | | 36 | 48 | 36 | | | |
| 6. SUCCESS | | 1,895 | 911 | 2,806 | | 71 | 64 | 68 | | 3.0 | 2.5 | 2.8 | | 21 | 1 | 14 | | 1 | 0 | 1 | | 32 | 59 | 41 | | | |
| 7. TERMINUS | | 367 | 675 | 1,042 | | 62 | 62 | 62 | | 2.8 | 2.6 | 2.7 | | 40 | 15 | 23 | | 0 | 0 | 0 | | 41 | 42 | 42 | | | |
| DISTRICT WT AVERAGE | | | | | | 66 | 58 | 64 | | 3.2 | 2.5 | 3.0 | | 22 | 9 | 19 | | 3 | 2 | 3 | | 46 | 60 | 49 | | | |

| PROJECT | PICNICKING (%) | | | | SWIMMING (%) | | | | WATER SKIING (%) | | | | PLEASURE BOATING (%) | | | | SIGHTSEEING (%) | | | | OTHERS (%) | | | |
|---------------------|----------------|-----|------|--------|--------------|-----|------|--------|------------------|-----|------|--------|----------------------|-----|------|--------|-----------------|-----|------|--------|------------|-----|------|--------|
| | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG |
| 1. BLACK BUTTE | | 35 | 7 | 33 | | 30 | 0 | 28 | | 31 | 0 | 29 | | 4 | 0 | 4 | | 20 | 52 | 24 | | 2 | 0 | 2 |
| 2. ENGLEBRIGHT | | 31 | 53 | 36 | | 23 | 0 | 18 | | 32 | 0 | 25 | | 21 | 11 | 19 | | 21 | 23 | 21 | | 1 | 0 | 1 |
| 3. ISABELLA | | 13 | 16 | 13 | | 46 | 1 | 39 | | 15 | 3 | 13 | | 1 | 0 | 1 | | 10 | 4 | 9 | | 0 | 0 | 0 |
| 4. NEW HOGAN | | 40 | 23 | 39 | | 55 | 0 | 51 | | 33 | 0 | 31 | | 8 | 0 | 7 | | 17 | 35 | 18 | | 1 | 0 | 1 |
| 5. PINE FLAT | | 24 | 0 | 24 | | 8 | 0 | 8 | | 11 | 0 | 11 | | 2 | 0 | 2 | | 29 | 23 | 29 | | 1 | 29 | 2 |
| 6. SUCCESS | | 27 | 12 | 22 | | 3 | 0 | 2 | | 13 | 0 | 8 | | 5 | 0 | 3 | | 37 | 40 | 38 | | 1 | 0 | 1 |
| 7. TERMINUS | | 42 | 31 | 35 | | 3 | 0 | 1 | | 43 | 10 | 21 | | 2 | 8 | 6 | | 13 | 38 | 29 | | 0 | 0 | 0 |
| DISTRICT WT AVERAGE | | 25 | 21 | 24 | | 29 | 0 | 23 | | 20 | 3 | 17 | | 4 | 3 | 4 | | 21 | 29 | 23 | | 1 | 0 | 1 |

| PROJECT | CAMPING ON PROJECT (%) | | | | STAYING IN AREA (%) | | | | CAMPING ON PROJ. AND STAYING IN AREA (%) | | | | AVG. DURATION OF VISIT CAMPING ON PROJ (Days) | | | | AVG. DURATION OF VISIT STAYING IN AREA (Days) | | | | AVG. DURATION OF VISIT DAY USE (Hours) | | | |
|---------------------|------------------------|-----|------|--------|---------------------|-----|------|--------|--|-----|------|--------|---|-----|------|--------|---|-----|------|--------|--|-----|------|--------|
| | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG |
| 1. BLACK BUTTE | | 25 | 0 | 23 | | 0 | 0 | 0 | | 25 | 0 | 23 | | 3.7 | 0.0 | 3.7 | | 7.0 | 0.0 | 7.0 | | 3.4 | 1.8 | 3.3 |
| 2. ENGLEBRIGHT | | 11 | 0 | 8 | | 5 | 0 | 4 | | 16 | 0 | 12 | | 2.6 | 0.0 | 2.6 | | 3.8 | 0.0 | 3.8 | | 4.3 | 3.4 | 4.1 |
| 3. ISABELLA | | 50 | 46 | 49 | | 20 | 17 | 19 | | 70 | 63 | 69 | | 4.7 | 4.1 | 4.6 | | 4.7 | 5.4 | 4.8 | | 4.0 | 3.5 | 3.9 |
| 4. NEW HOGAN | | 29 | 30 | 29 | | 1 | 8 | 1 | | 30 | 38 | 31 | | 2.6 | 2.4 | 2.6 | | 2.9 | 10.0 | 3.4 | | 4.3 | 2.9 | 4.2 |
| 5. PINE FLAT | | 12 | 8 | 12 | | 10 | 0 | 10 | | 22 | 8 | 22 | | 3.0 | 2.0 | 3.0 | | 4.1 | 0.0 | 4.1 | | 3.3 | 3.1 | 3.3 |
| 6. SUCCESS | | 5 | 0 | 3 | | 0 | 4 | 1 | | 5 | 4 | 5 | | 2.7 | 0.0 | 2.7 | | 2.0 | 4.0 | 2.7 | | 3.2 | 2.8 | 3.1 |
| 7. TERMINUS | | 5 | 6 | 6 | | 11 | 15 | 14 | | 16 | 21 | 19 | | 2.1 | 2.0 | 2.0 | | 3.7 | 2.7 | 3.0 | | 3.9 | 3.2 | 3.4 |
| DISTRICT WT AVERAGE | | 26 | 14 | 24 | | 9 | 10 | 9 | | 35 | 24 | 33 | | 3.4 | 3.0 | 3.3 | | 4.0 | 3.7 | 4.0 | | 3.7 | 3.1 | 3.6 |

DISTRICT: SACRAMENTO

YEAR: 1969

RECREATION USE DATA SUMMARY

PLAN FORMULATION STUDIES - RECREATION

| PROJECT | NO. OF PERSONS SURVEYED | | | % OF VISITORS ON WEEKEND | | | NO. OF PERSONS PER VEHICLE | | | % OF VEHICLES WITH BOAT-TRAILER | | | % OF VEHICLES WITH HOUSE-TRAILER | | | FISHING (%) | | |
|---------------------|-------------------------|------|--------------------------|--------------------------|------|--------|----------------------------|-----|---------|---------------------------------|----|-------|----------------------------------|--------|-----|-------------|-------|--------|
| | SP | FALL | TOTAL | SP | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG |
| 1. HARTWELL | 2,648 | | 512 3,160 | 62 | | 54 60 | 2.8 | | 2.3 2.7 | 23 | | 17 22 | 2 | | 0 2 | | 33 29 | |
| 2. CLARK HILL | 5,808 | | 1,244 7,052 ^a | 75 | | 70 74 | 2.9 | | 2.8 2.9 | 16 | | 20 17 | 1 | | 2 1 | | 20 20 | |
| | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| DISTRICT WT AVERAGE | | | | 71 | | 64 69 | 2.9 | | 2.6 2.8 | 18 | | 19 18 | 1 | | 1 1 | | 24 23 | |

| PROJECT | PICNICKING (%) | | | SWIMMING (%) | | | WATER SKIING (%) | | | PLEASURE BOATING (%) | | | SIGHTSEEING (%) | | | OTHERS (%) | | | | | | | | |
|---------------------|----------------|-----|------|--------------|----|-----|------------------|--------|----|----------------------|------|--------|-----------------|-----|------|------------|----|-----|------|--------|----|---|----|---|
| | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | | | | |
| 1. HARTWELL | 16 | | 16 | 16 | 13 | | 0 | 10 | 6 | | | 0 | 5 | 16 | | 13 | 15 | 30 | | 49 | 34 | 2 | 2 | |
| 2. CLARK HILL | 31 | | 29 | 31 | 9 | | 1 | 7 | 2 | | | 0 | 2 | 5 | | 1 | 4 | 30 | | 37 | 31 | 5 | 7 | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| DISTRICT WT AVERAGE | 26 | | 25 | 26 | 10 | | 1 | 8 | 3 | | | 0 | 2 | 9 | | 5 | 8 | 30 | | 41 | 32 | 4 | 12 | 5 |

| PROJECT | CAMPING ON PROJECT (%) | | | | | | STAYING IN AREA (%) | | | | CAMPING ON PROJ. AND STAYING IN AREA (%) | | | | | | AVG. DURATION OF VISIT CAMPING ON PROJ (Days) | | | | | | AVG. DURATION OF VISIT STAYING IN AREA (Days) | | | | | | AVG. DURATION OF VISIT DAY USE (Hours) | | | | | | | |
|---------------------|------------------------|--|----|------|--|---|---------------------|--|--|-----|--|---|------|----|--|--------|---|--|-----|--|--|------|---|--|--------|--|--|-----|--|--|------|--|--|--------|-----|-----|
| | SUM | | | FALL | | | WT AVG | | | SUM | | | FALL | | | WT AVG | | | SUM | | | FALL | | | WT AVG | | | SUM | | | FALL | | | WT AVG | | |
| | SP | | | | | | SP | | | | | | SP | | | | | | SP | | | | | | SP | | | | | | SP | | | | | |
| 1. HARTWELL | 12 | | 12 | 12 | | 1 | | | | | 0 | 1 | | 13 | | | | | | | | | | | | | | | | | | | | | 2.7 | 2.9 |
| 2. CLARK HILL | 9 | | 10 | 9 | | 4 | | | | | 4 | 4 | | 13 | | | | | | | | | | | | | | | | | | | | | 3.2 | 3.0 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DISTRICT WT AVERAGE | 10 | | 11 | 10 | | 3 | | | | | 3 | 3 | | 13 | | | | | | | | | | | | | | | | | | | | | 3.0 | 3.0 |

DISTRICT: SAVANNAH

YEAR: 1969

| PLAN FORMULATION STUDIES - RECREATION | | | | | | | | | | RECREATION USE DATA SUMMARY | | | | | | | | | | | | | | |
|---------------------------------------|-------------------------|-------|-------|--------|--------------------------|-----|------|--------|----------------------------|-----------------------------|------|--------|---------------------------------|-----|------|--------|----------------------------------|-----|------|--------|-------------|-----|------|--------|
| PROJECT | NO. OF PERSONS SURVEYED | | | | % OF VISITORS ON WEEKEND | | | | NO. OF PERSONS PER VEHICLE | | | | % OF VEHICLES WITH BOAT-TRAILER | | | | % OF VEHICLES WITH HOUSE-TRAILER | | | | FISHING (%) | | | |
| | SP | SUM | FALL | TOTAL | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG |
| 1. CANTON | 4,809 | 6,261 | 1,338 | 12,408 | 77 | 64 | 67 | 69 | 3.3 | 3.4 | 2.9 | 3.3 | 12 | 12 | 10 | 12 | 3 | 0 | 2 | 1 | 46 | 17 | 41 | 31 |
| 2. DENISON | | 1,461 | 609 | 2,070 | | 61 | 65 | 62 | | 3.4 | 2.7 | 3.2 | | 21 | 29 | 24 | | 1 | 1 | 1 | | 29 | 69 | 43 |
| 3. EUFAULA | 1,737 | 3,217 | 903 | 5,857 | 67 | 57 | 64 | 61 | 2.7 | 3.4 | 2.6 | 3.0 | 10 | 12 | 17 | 12 | 0 | 1 | 2 | 1 | 31 | 21 | 45 | 28 |
| 4. FALL RIVER | 486 | 587 | 251 | 1,324 | 69 | 78 | 61 | 71 | 2.9 | 3.1 | 2.8 | 3.0 | 8 | 13 | 3 | 9 | 9 | 5 | 11 | 8 | 51 | 37 | 44 | 44 |
| 5. FORT GIBSON | 1,197 | 1,532 | 436 | 3,165 | 65 | 59 | 57 | 61 | 2.9 | 3.3 | 2.4 | 3.0 | 22 | 12 | 16 | 17 | 1 | 1 | 0 | 1 | 63 | 21 | 63 | 45 |
| 6. FORT SUPPLY | 1,741 | 1,580 | 299 | 3,620 | 63 | 57 | 45 | 59 | 2.9 | 3.1 | 2.3 | 2.9 | 8 | 14 | 0 | 10 | 1 | 1 | 0 | 1 | 40 | 10 | 17 | 26 |
| 7. GREAT SALT PLAINS | 1,217 | 1,029 | 566 | 2,812 | 79 | 67 | 74 | 74 | 3.1 | 3.2 | 2.6 | 3.0 | 2 | 12 | 2 | 6 | 2 | 0 | 3 | 2 | 33 | 18 | 36 | 28 |
| 8. HEYBURN | 1,092 | 1,420 | 374 | 2,886 | 63 | 56 | 50 | 58 | 3.5 | 4.0 | 3.4 | 3.7 | 12 | 13 | 9 | 12 | 0 | 1 | 2 | 1 | 19 | 5 | 34 | 15 |
| 9. HULAH | 497 | 544 | 182 | 1,223 | 65 | 62 | 45 | 60 | 2.9 | 3.5 | 2.3 | 3.0 | 11 | 19 | 13 | 15 | 9 | 8 | 2 | 7 | 60 | 19 | 50 | 42 |
| 10. KEYSTONE | 2,898 | 3,681 | 725 | 7,304 | 77 | 62 | 57 | 68 | 3.0 | 3.4 | 2.4 | 3.1 | 18 | 9 | 19 | 14 | 0 | 0 | 0 | 0 | 21 | 4 | 30 | 14 |
| 11. OOLOGAH | 4,207 | 3,942 | 1,323 | 9,472 | 64 | 65 | 44 | 61 | 3.7 | 3.5 | 3.4 | 3.6 | 4 | 5 | 2 | 4 | 0 | 0 | 3 | 0 | 39 | 39 | 42 | 39 |
| 12. TORONTO | 470 | 529 | 283 | 1,282 | 72 | 64 | 70 | 69 | 3.2 | 4.0 | 3.3 | 3.5 | 21 | 29 | 9 | 21 | 6 | 7 | 11 | 8 | 34 | 21 | 24 | 27 |
| 13. TENKILLER | 828 | 1,771 | 280 | 2,879 | 73 | 55 | 37 | 58 | 3.0 | 3.5 | 2.5 | 3.2 | 15 | 32 | 11 | 24 | 3 | 1 | 0 | 1 | 30 | 31 | 54 | 34 |
| 14. WISTER | 644 | 735 | 342 | 1,721 | 46 | 59 | 49 | 52 | 2.3 | 2.8 | 2.2 | 2.5 | 7 | 4 | 3 | 5 | 1 | 2 | 5 | 2 | 50 | 27 | 51 | 41 |
| DISTRICT WT AVERAGE | | | | | 69 | 59 | 58 | 63 | 3.1 | 3.4 | 2.7 | 3.2 | 11 | 13 | 11 | 12 | 2 | 1 | 2 | 2 | 38 | 20 | 43 | 31 |

| PROJECT | PICNICKING (%) | | | | SWIMMING (%) | | | | WATER SKIING (%) | | | | PLEASURE BOATING (%) | | | | SIGHTSEEING (%) | | | | OTHERS (%) | | | |
|----------------------|----------------|-----|------|--------|--------------|-----|------|--------|------------------|-----|------|--------|----------------------|-----|------|--------|-----------------|-----|------|--------|------------|-----|------|--------|
| | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG |
| 1. CANTON | 17 | 11 | 3 | 12 | 1 | 48 | 0 | 24 | 1 | 6 | 0 | 3 | 4 | 4 | 1 | 4 | 36 | 21 | 56 | 31 | 0 | 0 | 0 | 0 |
| 2. DENISON | | 6 | 2 | 5 | | 47 | 0 | 30 | | 7 | 0 | 5 | | 9 | 6 | 8 | | 11 | 24 | 15 | | 2 | 1 | 2 |
| 3. EUFAULA | 4 | 6 | 5 | 5 | 1 | 52 | 5 | 27 | 2 | 15 | 1 | 8 | 2 | 4 | 1 | 3 | 57 | 16 | 38 | 33 | 5 | 1 | 4 | 3 |
| 4. FALL RIVER | 2 | 8 | 4 | 5 | 0 | 10 | 0 | 4 | 0 | 14 | 0 | 6 | 4 | 1 | 0 | 2 | 38 | 42 | 44 | 41 | 0 | 0 | 0 | 0 |
| 5. FORT GIBSON | 22 | 41 | 20 | 30 | 0 | 77 | 1 | 38 | 0 | 14 | 0 | 6 | 4 | 1 | 3 | 3 | 21 | 10 | 20 | 16 | 3 | 2 | 6 | 3 |
| 6. FORT SUPPLY | 26 | 24 | 3 | 23 | 3 | 49 | 0 | 21 | 2 | 10 | 0 | 5 | 4 | 6 | 0 | 4 | 37 | 29 | 77 | 38 | 0 | 1 | 3 | 1 |
| 7. GREAT SALT PLAINS | 18 | 19 | 1 | 14 | 15 | 27 | 1 | 16 | 0 | 2 | 0 | 1 | 1 | 10 | 1 | 4 | 38 | 32 | 60 | 41 | 0 | 0 | 1 | 0 |
| 8. HEYBURN | 22 | 14 | 39 | 21 | 36 | 58 | 3 | 41 | 4 | 11 | 0 | 7 | 4 | 5 | 6 | 5 | 14 | 5 | 15 | 10 | 0 | 0 | 0 | 0 |
| 9. HULAH | 15 | 30 | 0 | 18 | 7 | 71 | 0 | 31 | 3 | 24 | 0 | 11 | 4 | 6 | 0 | 4 | 18 | 12 | 35 | 19 | 2 | 0 | 5 | 2 |
| 10. KEYSTONE | 20 | 10 | 6 | 14 | 25 | 52 | 6 | 35 | 5 | 4 | 2 | 4 | 7 | 5 | 4 | 6 | 21 | 16 | 45 | 22 | 0 | 0 | 5 | 1 |
| 11. OOLOGAH | 16 | 20 | 5 | 16 | 5 | 15 | 0 | 9 | 2 | 3 | 0 | 2 | 1 | 2 | 0 | 1 | 42 | 33 | 53 | 40 | 0 | 0 | 0 | 0 |
| 12. TORONTO | 9 | 12 | 3 | 9 | 0 | 29 | 0 | 10 | 1 | 11 | 2 | 5 | 10 | 13 | 5 | 10 | 48 | 29 | 55 | 43 | 0 | 1 | 0 | 0 |
| 13. TENKILLER | 20 | 18 | 16 | 18 | 5 | 71 | 0 | 43 | 4 | 40 | 0 | 24 | 17 | 2 | 1 | 6 | 42 | 12 | 40 | 24 | 3 | 3 | 1 | 3 |
| 14. WISTER | 10 | 20 | 5 | 13 | 0 | 20 | 0 | 8 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 38 | 34 | 43 | 38 | 0 | 0 | 0 | 0 |
| DISTRICT WT AVERAGE | 17 | 15 | 7 | 14 | | 45 | 1 | 24 | 2 | 10 | 0 | 5 | 4 | 4 | 2 | 4 | 35 | 21 | 45 | 30 | 1 | 1 | 4 | 1 |

YEAR: 1969

| PLAN FORMULATION STUDIES - RECREATION | | | | | | | | | | | | | | RECREATION USE DATA SUMMARY | | | | | | | | | | | | | |
|---------------------------------------|------------------------|-----|------|--------|---------------------|-----|------|--------|--|-----|------|--------|---|-----------------------------|------|--------|---|------|------|--------|--|-----|------|--------|-----|--|--|
| PROJECT | CAMPING ON PROJECT (%) | | | | STAYING IN AREA (%) | | | | CAMPING ON PROJ. AND STAYING IN AREA (%) | | | | AVG. DURATION OF VISIT CAMPING ON PROJ (Days) | | | | AVG. DURATION OF VISIT STAYING IN AREA (Days) | | | | AVG. DURATION OF VISIT DAY USE (Hours) | | | | | | |
| | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | SP | SUM | FALL | WT AVG | | | |
| 1. CANTON | 7 | 9 | 7 | 8 | 1 | 0 | 1 | 1 | 8 | 9 | 8 | 8 | 3.7 | 4.9 | 4.5 | 3.2 | 4.5 | 4.2 | 4.2 | 3.4 | 4.1 | | | | | | |
| 2. DENISON | | 17 | 8 | 14 | | 23 | 22 | 23 | | 40 | 30 | 37 | 4.7 | 4.7 | 4.3 | 4.1 | 4.2 | | | 3.8 | 4.4 | 4.0 | | | | | |
| 3. EUFAULA | 5 | 34 | 15 | 21 | 7 | 10 | 7 | 8 | 12 | 44 | 22 | 30 | 3.3 | 4.1 | 3.7 | 2.8 | 3.6 | 2.6 | 3.4 | 3.0 | 3.1 | | | | | | |
| 4. FALL RIVER | 18 | 23 | 16 | 20 | 0 | 0 | 0 | 0 | 18 | 23 | 16 | 20 | 2.2 | 2.3 | 0.0 | 0.0 | 0.0 | 3.9 | 3.3 | 3.3 | 3.5 | | | | | | |
| 5. FORT GIBSON | 13 | 9 | 5 | 10 | 1 | 3 | 3 | 2 | 14 | 12 | 8 | 12 | 3.1 | 3.0 | 2.1 | 2.9 | 5.9 | 2.6 | 3.7 | 4.1 | 4.3 | 3.7 | 3.5 | 3.9 | | | |
| 6. FORT SUPPLY | 1 | 4 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 4 | 0 | 2 | 2.3 | 4.0 | 0.0 | 0.0 | 3.1 | 0.0 | 0.0 | 2.0 | 2.0 | 3.3 | 3.3 | 1.9 | 3.1 | | |
| 7. GREAT SALT PLAINS | 2 | 4 | 8 | 4 | 0 | 1 | 0 | 0 | 2 | 5 | 8 | 4 | 2.5 | 2.7 | 3.1 | 2.7 | 2.0 | 14.0 | 2.0 | 6.2 | 2.4 | 2.9 | 2.5 | 2.6 | | | |
| 8. HEYBURN | 0 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 1 | 0.0 | 2.7 | 3.5 | 2.9 | 0.0 | 0.0 | 0.0 | 0.0 | 3.1 | 3.8 | 3.3 | 3.4 | | | |
| 9. HULAH | 26 | 34 | 11 | 26 | 3 | 12 | 5 | 7 | 29 | 46 | 16 | 33 | 2.7 | 4.5 | 2.9 | 3.4 | 2.8 | 2.0 | 2.0 | 2.3 | 3.6 | 4.1 | 2.4 | 3.6 | | | |
| 10. KEYSTONE | 3 | 9 | 3 | 6 | 0 | 0 | 0 | 0 | 3 | 9 | 3 | 6 | 4.5 | 5.1 | 2.6 | 3.2 | 0.0 | 2.0 | 0.0 | 2.0 | 3.2 | 3.0 | 2.4 | 3.0 | | | |
| 11. OOLOGAH | 2 | 4 | 5 | 3 | 0 | 0 | 0 | 0 | 2 | 4 | 5 | 3 | 2.9 | 3.0 | 2.8 | 2.9 | 0.0 | 0.0 | 0.0 | 0.0 | 3.0 | 3.3 | 2.9 | 3.1 | | | |
| 12. TORONTO | 20 | 25 | 24 | 23 | 0 | 0 | 0 | 0 | 20 | 25 | 24 | 23 | 3.3 | 3.1 | 2.5 | 3.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.4 | 4.0 | 2.8 | 3.5 | | | |
| 13. TENKILLER | 12 | 34 | 13 | 25 | 13 | 10 | 9 | 11 | 25 | 44 | 22 | 36 | 3.7 | 5.4 | 5.4 | 4.9 | 2.9 | 3.3 | 3.9 | 3.3 | 2.6 | 4.0 | 3.2 | 3.5 | | | |
| 14. WISTER | 12 | 18 | 31 | 18 | 10 | 10 | 1 | 8 | 22 | 28 | 32 | 27 | 2.7 | 2.4 | 2.5 | 2.5 | 10.0 | 3.8 | 4.4 | 6.4 | 2.9 | 3.0 | 2.1 | 2.8 | | | |
| DISTRICT WT AVERAGE | 6 | 14 | 9 | 10 | 2 | 4 | 3 | 3 | 8 | 17 | 13 | 13 | 3.3 | 3.8 | 3.3 | 3.5 | 4.7 | 4.0 | 3.2 | 4.1 | 3.3 | 3.6 | 3.0 | 3.4 | | | |

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| 20. ABSTRACT (Continue on reverse side if necessary and identify by block number) This report presents methodology for estimating initial recreation use at prospective Corps of Engineers reservoirs. It is the outgrowth of recreation-use studies instituted by the Office of the Chief of Engineers, Wash., D. C. The procedure described utilizes the "most similar project" concept; i.e., an existing reservoir that is most comparable in size, operation, and anticipated recreation-use characteristics. Relating recreation-use | | |

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information from an existing reservoir to a reservoir under study provides the basis for the use estimating technique.

The report provides general descriptions, pertinent project information, and recreation-use data for 52 existing Corps reservoirs. It includes detailed discussion and evaluation of a prospective reservoir project and general criteria for selecting a similar project from among those reservoirs included. For illustrative purposes, an example detailing the application of the methodology is furnished. While the methodology eliminates much of the "guess work" previously associated with estimating the recreation use and benefits for Corps reservoir projects, it is emphasized that it is by no means the "last word" or final solution. There are inherent deficiencies in the method. However, as more recreation-use data are collected and analyzed, it is planned that the technique will be revised and improved.

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